SOCIO-ANTHROPOMETRY

B. L. STEVENSON

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Socio-Anthropometry

An Inter-Racial Critique

B. L. STEVENSON, Ph. D.

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PREFACE

SOCIOLOGY postulates differences among men: anthropology postulates differences among men. These differences are illustrated racially. By classifying the sociological and anthropological differences of the three European races and applying the findings of anthropological data to sociological data it may be possible to obtain a critical scientific basis to be used in the application of anthropologic data to problems in sociology. Firstly, however, the question is raised, do the findings of the classified racial anthropometric data support sociologic differences; are sociologic differences based on anthropologic differences? To find a solution for this hypothesis it is necessary to classify the anthropometric and sociologic data of separate races, for example, the three European races, further, to apply the anthropometric findings to the findings of sociology, and finally to summarize the main problems which arise, for the purpose of discovering a critical scientific basis of knowledge to be used in the application of anthropometry to sociology.

If the tendency of civilization is to create likenesses, if the laws of imitation *et cetera* work for similarity of individuals, but if in spite of the underlying principle of harmony, very great unlikeness among individuals is nevertheless to be observed, the cause of unlikeness must be ascertained. It may be that the cause of sociological unlikeness is physical, in that case it may be sought in anthropometry, if not as a causal and correlational primary factor, then as a secondary cause or accessory criterium. To see if there is connection

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between types of races and their types of activity, between physical and social man, a comparison of typical races, settings and civilization is demanded,—Teutonic, Alpine and Mediterranean races with their English and Scandinavian, French and Russian, and Italian nations. Because general sociological and anthropological considerations in themselves are too extensive, national units are *ipso facto* prerequisite. Since, however, numerous nations represent each type, it becomes necessary to limit the choice even if arbitrarily to certain well selected nations. Thus although Germany ranks equally with England and Scandinavia in representing the Teutonic type, it has been thought best to exclude the former in the light of the preeminence which that country has already held as an anthropological issue in racial considerations, and to restrict to the treatment merely of Scandinavia and England; while, furthermore, to choose Italy as the sole representative of the southern type in view of the fact that the development of this country repeats and elaborates that of many another Mediterranean nation.

The terms socio-anthropologic or anthropometric and anthropo-sociologic or physio-ethnological are used synonymously, but because the point of view adhered to primarily in the following pages is the anthropologic, the term socio-anthropology is more frequently employed. The data used are, with one exception, based upon the investigations of others, from which data, in fact, as well as from authorities in both anthropological and sociological fields of research there originates the demand for the treatment of this problem, in other words a seeking after the third dimension, socio-anthropometry, where two dimensions, anthropology and sociology, are already given.

B. L. Stevenson.

New York City, 1916

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SOCIO-ANTHROPOMETRY

Socio-Anthropometry

CHAPTER I

INTRODUCTION. ORIGINS OF RACES AND NATIONS

ANY discussion of race is handicapped by four points of obscurity, firstly there exists no very clear idea in the mind of many as to what constitutes race, secondly, the marks of differentiation which serve to set one race off from another are often vaguely presented, thirdly there seems to be no very reliable knowledge concerning the number and the origin of races, and finally, geographical location is not invariably clearly defined. The resolution of these points is attended with difficulties, nevertheless, a certain compromise between facts and semi-established facts is requisite to the treatment of the subject of race. Race may in philosophical terms be described as a moving reality, a being and a becoming or as Topinard says, "an abstract conception, a notion of continuity in discontinuity, of unity in diversity." A continuity in discontinuity because a certain set of elements must persist generation after generation in spite of the changes wrought by the passage of years, in order to produce type, which is essentially race in unit. That a certain set of elements is seldom found combined in one individual bespeaks the rarity of an ideally perfect individual type. Types are necessarily composed of elements, physical and psycho-physical, morphological and physiological, and it is upon these elements or traits that the distinguishing marks of

races are founded. Hair, eyes, skin, head and stature are primary; functions of nutrition, reproduction, natural conditions, climate, moisture, temperature, food supply *et cetera* are secondary and presuppose the relation of individuals to their habitat. The hair by its nature or by its colour blond or brunette, the eyes pigmented light, intermediate or dark, the stature, tall, short, or medium, and the cephalic index—the relational breadth of the head to its length—all serve as test marks of race. These physical characteristics in forming the basis for classification of all mankind in great stocks, or varieties, or races, divide men into colour classifications as, for instance, Deniker's division of white, yellow, reddish brown and black skinned strains. Furthermore, hair may be straight, slank, wavy, spiral, frizzy, curly, wooly or fleece-like. It may be long or short. The colour may range from pale blond through the ruddy shades to jet black. The correlations of body height and head index added to colour defines racial characteristics more narrowly. Head index of all body characteristics the least changed under the mutable conditions of environment gives the final stamp to racial distinctions in its dolichocephalic and brachycephalic classifications.

Hair, skin, eyes, stature and head index are characteristics common to all men, and on these points Europe, Africa, Asia and America can be classified. Over these continents are distributed the white, yellow, red, and black skinned races—black in Africa, red in America, yellow in Asia and white in Europe. Restricting to the continent of Europe, Asia and Africa cannot be ignored. Sergi in classifying races principally according to cephalic index, recognizes the Mediterranean district as the center of dispersion of the European races, and consequently divides mankind into the Eurafrican and the Eurasian accordingly as the

races have made their home in Africa and Europe, or Asia and Europe. Sub-ordinately Eurafrican stock is divided into two varieties, Mediterranean and Nordic. Eurafrican and Eurasian varieties are designated by Ripley Teutonic and Alpine Mediterranean. The Teutonic type is white skinned, blond haired, blue-eyed, narrow of head and tall of stature; the Alpine type is white skinned, brown haired, bluish-gray eyed, round of head and mediumly tall; and the Mediterranean type is olive skinned, dark haired, dark eyed, long of head and mediumly tall.

Anthropologically. With location is raised the question of racial origin. Was there originally one or were there multiple races? The monogenists taking the orthodox stand declare with Quatrefages that all races have proceeded from one race, "the Biblical Adam and Eve," and that evident dissimilarities today are merely the result of climate and environment. The polygenists, on the other hand, see in the short duration of time of the period of development the impossibility of such drastic changes taking place, and declare that for that reason many original races must have existed. Agassiz, an extreme advocate, has admitted eight centers of origin, which he has determined according to the flora and fauna of the earth.

However originating, whether at one or at many points upon the globe, there remains no doubt, at least in the minds of evolutionists, that man is but the successor to the ape in biological development. It is only needed to recall the ape-like skull of the Neanderthal man to realize the close kinship between the animal and human world which must have prevailed throughout the paleolithic and neolithic ages. That the cooling of the earth and the appearance of fauna and flora was followed by the advent of man is undoubted. But as to whether the original men were dolichocephalic or

brachycephalic, and when the crossing and recrossing of races occurred are matters of utmost obscurity. Inferior and superior races must have battled for survival, but the resulting composition is very much a matter of guess work. Retzius believes that the brachycephalic type preceded the dolichocephalic, Topinard the opposite. The existence of long burrows with dolichocephalic skulls and flint instruments establishes the fact that men had lived and worked with tools. The knowledge of the art of fire making was known in the metal age, when hunting and fishing were practiced. Life was, no doubt, wholly nomadic. That wars and invasions took place in the stone age is believed. Histories of Egypt, Persia, India and China point to the circumstance that civilized centers were surrounded by nomadic tribes, a fact which is supported by the assumption that barbaric invasions occurred very early. Blue eyed, light haired barbarians poured into Egypt before 1500 B. C. The Huns and Gauls are later instances. In fact from the time of the very earliest geological periods these movements of mankind must have taken place, caused by the sinking or rising of areas of the earth's surface, by the increasing inclemency of one locality from lack of water supply, for instance, and the increasing clemency of another locality. Down the broad rivers human beings must have proceeded, eastwards and westwards, to plains or valleys that were fertile. Such displacements of peoples entailed, of course, a redistribution and substitution of immigrants for aborigines, and implies the evolving of social institution and the expression of man's ethnological characteristics.

Ethnologically. Race is an anthropological term; nation, on the other hand, is distinctly ethnological. The beginnings of culture emphasize ethnological considerations, and in this connection the Aryan, *homo*

Europaeus, is given large credit for the peopling of Europe. The contended opinion that because most of the tongues of Europe possess Sanskrit origins, and that the myths of Europe re-embody the myths of central Asia, a necessary connection must exist between Europe and Asia has been broken down of late by the establishment of the fact that Europe has known a long continued racial continuity. That the influx from Asia, if it did occur, must have been social and industrial and therefore purely linguistic, is the opinion of most of the debaters of this question to-day. Indeed, linguistic connection is often startingly evident in ethno-anthropological matters—witness, the names of some of the nations of the present, England from Angles, a Germanic tribe north of the Elbe, France from the Franks, and Russia from the Rossi, a Scandinavian family which ruled at Moscow in remote ages.

Early life at the close of the neolithic age when dolichocephalic races occupied Scandinavia and north Germany, Spain and Italy, and brachycephalic Belgium, Switzerland and Russia, was characterized by the very rudiments of human activity. Hunting and fishing must have been followed by agriculture and all these occupations demanded tools. This demand set man's inventive energy to work to grapple with the making of tools, fire, and the bow and arrow. Decorating, weaving, the making of pottery and the domestication of animals were gradually learned. No division of labour could have occurred until after the formation of the state, however, for division of labour is dependent upon organization and the centralization of a directive agency. The simplest and most isolated industry must have preceded the institution of trade, but that the associative element of trade must soon have begun to make itself felt is proven by the early

occurrence of fairs. The purpose of the fairs and markets was to call attention to the blessings of prosperity and to offer an opportunity for the disposal of live stock, metals and the produce of agriculture. Amber trade took place in Scandinavia at an early date, and Tyre makes mention of her trade in lambs. Religious festivals offered an early occasion for fairs. Scattered members of a clan or tribe were accustomed to come together for worship of a common deity. The harvest of the corn crop presented an occasion for celebrating a wooing, and so grew up many a custom among primitive peoples. The oats is regarded in some countries as an autumn symbol of courtship as the myrtle is the springtime symbol in others. Forcible wooing, death and mourning customs, and the mutilation of the body are all connected with very early periods. The making of homes presupposed some sort of marital condition necessary for the rearing of children, consequently promiscuous marriages, polygymy, polyandry, and monogamy have variously characterized primitive family life. The importance of the family was indeed not to be gainsaid in early days, for to it can be traced the rudiments of state organization in such forms as the patriarchal family. In the patronymic grouping can also be detected the early beginnings of religious observances. The worship of an ancestor antedated the rise of a priestly cult. With settled life religion, associated in the mind of a savage with nature wonder, took its first definable form. A worship of the unseen, spirits and ghosts, and propitiation of the same, a belief in dreams and a regard for omens, together with a general fear of the supernatural characterized primitive man's religion. To outward expression of the inner consciousness of religion can be traced the rise of the priestly cast, the sway of medicine men and the early form of terpsichorean art.

Slower to evolve but betokening a higher degree of specialization than industry or religion in primitive life is politics. The establishment of a state marks a climax in the transition of society from primitive to civilized form. It is the note of difference between tribal and civil society, where conditions of increasing wealth and population demand systematic cultivation of agriculture and organized social life. Restlessness and lawlessness have to be overcome by the force of the state; a machine of government is organized and later towns grow up, considerations of citizenship and economic relations make their appearance. Upon economic relations are based science, commerce and invention and these relations become eventual factors for differentiating kinds of states. The duties and the purposes of the state have enlarged its functions till they have come to include broad activities. Aristotle said of the Greek state: "it is only an outward expression of the common aspirations and beliefs of its members." Because it emphasizes the trait *common* to all members, the state represents the very foundation of society, like-mindedness.

Historically. Ancient states as Egypt, Babylonia, Medo-Persia, Greece, and Rome illustrated the maturity of social organization, but modern European nations springing from the foundations of the ancient world are even more illustrative of the crystallizing forces of social organization as well as concrete expressions of racial development. From the time when Roman conquests included theoretically all land from far China to the British Isles, and the idea of the Holy Roman Empire was instrumental in forming the Western and Eastern Empires, as well as Russian, Persian, and Turkish dominion, till the birth of modern nations all Europe showed, through the surging tide of flux and reflux of peoples, the formulating impulse of social

organization based on racial differentiation. Conquest and repulse, racial and social mixing, and the imposition of one state of civilization or barbarity upon another characterized those ages, when the advent of Mahomet caused the Saracens to stretch their conquestial tide from Arabia westward through Africa, Spain and France, and eastward to Constantinople, and those early centuries when the hordes of the yellow race, the Mongols, Magyars and Tartars of the tenth and thirteenth centuries poured into Europe. The disruption of Charlemagne's power and the birth of France, the Norman conquest and the birth of England are examples of inter-racial conflict which produced two nations destined to become dominantly typical of their respective racial strains.

Thus have the nations shifted and re-shifted till to-day instead of great unbroken areas containing unmixed racial types as in the ancient ages, we have distinct national wholes, and added to physical type we have national and distinct ethnological types. England, the result of the Saxon Norman conquest, Russia of successive repulses of Mongolic hordes, and European conflicts, France of wars from the time of Charlemagne to Bismarck, and Italy of countless vicissitudes since the days of the Holy Roman Empire to the war of 1870 are all examples of units which express race, customs and statehood. Types of races include all people, but Teutonic, Alpine and Mediterranean types may be well represented in a few of the prominent world powers of Europe. England by virtue of long continued national life can well serve to represent the Teutonic type, France the Slavic or Alpine type and Italy the Mediterranean or south European peoples.

Sociologically. The old law of conflict, savage tribe exerting its will on another savage tribe, is thus illustrated in this subordination of one nation by an-

other, of rising and falling powers, of destinies that waxed and waned. In primitive form the subordination is physical, in the civilized it is ethnological, for language and customs are imposed instead of brute force. It is always annihilation of one form for the preservation of another, which is evolution in process.

That a nation resembles an individual in being formed of certain elements is undoubted. Social, psycho-physical and physical traits are present in each aggregate whole. One is a unit as the other is a unit. Individuals are units marked off and differentiated from each other by racial and national barriers, possessing, hower, common intellectual, emotional, moral and physical faculties, therefore, participating in culture and civilization as a whole and expressing art, religion and literature; and it is the study of these individuals as units, or representatives of race-units, defined by ethnological, historical and sociological distinctions, which is to constitute the subject to be handled.

Given physical traits such as elements of head, hair, skin, eyes and stature, the question arises does a particular cast of sociological setting accompany a certain anthropologic type? Having a type of such and such dimensions, possessing such and such physical characteristics, is there a likelihood that this type will manifest itself in thought, word and deed and all their far reaching consequences, which also may be considered type? In other words does anthropometric type equal sociologic type, and vice versa? Upon the answer to this query depends the great validity of socio-anthropometry.

CHAPTER II

THE TEUTONIC RACE

CONSIDERATION of the three prominent racial types includes discussion of the Teutonic, Alpine and Mediterranean types. The first of these is, as we have seen, fair haired, blue eyed, long of head and tall of stature. It is evident to-day in the Englishman and the Scandinavian. But it is not to be concluded from this statement that every Englishman or Dane represents the Teutonic type *par excellence* any more than that England and Scandinavia are absolutely Teutonic states. As stated above pure type is hardly ever to be found, for the combination in one individual much less a nation, of all the characteristic marks of type is almost an impossibilty. Nevertheless, the very fact that people however unlike individually, have been brought together at some remote period, are living side by side, possessing a common language, common creed and inspired by identical ideals of statehood, the fact that a people is thus massed together produces a certain unity. Thus it is possible to speak of "the English" as a unit and mean a definite type.

The English Nation. To trace the development of the English example of Teutonic type is to commence with the doubt which has been expressed as to whether dolichocephals or brachycephals were the original *homo Europaeus* type. That the problem is believed to be less complicated on the island is proven by the clear statements of Beddoe who definitely states that the original Britons were dolichocephalic. That they were dark and small of stature is generally supposed. After

the dawn of history these primitive characteristics came to be identified with the traits of traders and invaders who visited the island. Probably the Phoenicians and most surely the Romans left some traces on little Britain. But these visits are hardly anthropologically important, for the traders and the conquerors left no lasting mark on type. Early Britons remained the same as they had been throughout the bronze and iron ages till the coming of the Teutons. Jutes, Angles and Saxons were the first newcomers to make an impress on the island racially. Of northern stock, light haired, fair and tall, these visitors came to stay, and pushed the true Britons to the western mountains. The fertile geographical plain which slopes from the Welsh mountains to the Channel was acceptable to the agricultural tastes of the newly arriving Frisians. "These men," said an old chronicler of the Frisians, "been high of body, stern of virtue, strong and fierce of heart; they be free, and not subject to lordship of any man; and they put their lives in peril by cause of freedom, and would liever die than embrace the yoke of thraldom."[1] But still another branch of Teutons was destined to come to Britain before the termination of invasions had fixed a type which was to become known as the English type of to-day. Danes and later Normans, the Black and White Northmen, as they were called, were invaders, but unlike the Romans, they changed the anthro-ethnological type of Britain, for they came to settle and perpetuate the race.

The significance of this contact between two representative strains of the Teutonic stock should not be disregarded, for in it are perhaps to be discovered dynamic elements which were to contribute to the event-

[1]Beddoe, J. *The Anthropological History of Europe.* London, 1912, p. 144.

ual rise to world power and physical superiority of one of the participating nations. The Normans were Norsemen in France, for from the days when Rollo advancing up the Seine, entered Paris and founded a family which in time was to produce that brilliant figure of the eleventh and twelfth centuries William the Conqueror, till the invasion of England by this very William, the Normans were Norsemen in France. Thereafter they became Englishmen, and from that time to the present day two dominant strains have threaded their way through English life and character. The Saxon strain is expressed in love of home, of agriculture, of obedience to law, and the democratic principle: the Norman strain shows itself in love of personal liberty, of adventure, of fine quality and truthful virtues, and the aristocratic principle. The Normanizing of England affected language, government, church and nobility. The Norman conquest is really the birth of England because it was the last of the invasions and paved the way for the working out of the homogeneity of a people. A state is based on homogeneity of race, compactness of territorial possession, religious cohesion and stability of government. But it is men who in the last analysis make a state, and when through the consciousness of the members of a state there runs a consciousness of kind, a feeling of like mindedness, and a sense of brotherhood, a state is evolved. A realization of nationalism was developed early in England. By the end of the sixteenth century when the continental states were still laboring under the dominance of separating factors, England possessed a strong sense of national cohesiveness. Homogeneity of race practically began when the last invasion was finished, that is, when the Northmen overran England, for the later coming of the Flemish and French Huguenots to the island cannot be said to have made much

impress anthropologically. With the Norman conquest began the impulse towards amalgamation of the component parts, ancient Britons, Angles, Jutes, Danes, and Normans into one type, the physical and psycho-physical Englishmen of to-day. That the melding is really never completed, however, is clearly shown in the persistence at the present of physical types in England, Scotland and Wales which resemble very accurately the old racial types.

Still geographical isolation, freedom from invasion and fertility of domestic soil resulted in the inauguration of a small nation which was destined eventually to expand one hundred times its original size. Economic pressure between enlarging population and constricted quarters was to be the motive for world conquest and world empire. The Teutonic trait, a desire for adventure, colonization and expansiveness, operating in the English conquering heroes of the seventeenth, eighteenth and nineteenth centuries was to acquire possessions valuable for world empire, while Saxon traits of tenacity of hold, love of settlement and singleness of purpose were to operate for the retention of vast territorial possession in the name of England. The industrial revolution coming to convulse old trade and commercial relations proved an opportunity for England's long maturing utilitarian character to manifest itself, and the mechanic inventions and English contributions to scientific skill are the result of the successful use of that opportunity. Upon the utilitarian character of the Briton has been built the great structure of England's commanding position in the world arena. Commercialism based upon domestic security and an adequate financial foundation has resulted in a growth of invention rapid enough to settle great industrial problems and a scientific outlook keen enough to maintain a trade which brooks no rival. The state-

hood behind all this is a state with a policy of common sense and resolution. What is right and worth while governs the action of the British. The decision as to what is right and worth while is the outcome of the balance maintained between two principles, democracy and aristocracy, the Saxon and the Norman Teutonic virtues, and the constitutional conflict between king and people has illustrated the working out of this two-sided English character. The evolution of the Church of England likewise showed this conflict of traits, but in much less degree than the evolution of the machine of government. The free thinking of Protestantism once having entered the English frame of life emphasized the conservative aristocratic principle of Norman origin. To-day, the church in England illustrates national cohesiveness and social like-mindedness. That such was not the case during the centuries when the transition from Catholic to Protestant form of worship occurred is needless to say. Being Catholic at first, the English church dominated the government and ruled through the power of the pope, until the advent of Protestantism called for a decisive adjustment of the rival claims of the two creeds. A making over of the new on the pattern of the old resulted. Protestantism succeeded Catholicism with no rent in the national consciousness, and no church wars in England as on the continent of Europe. The church expresses an Englishman's love of form, tradition and social standing. England unlike un-Teutonic countries has made no great contribution to the heart of religion, she has rather contributed to the thinking powers of religion. Criticism and good taste are English churchly attributes. These qualities likewise characterize the Briton in art and literature. Bred in colleges that aim to make the gentleman, molded on the accepted form of the ideal English gentleman, he be-

queaths to literature a spirit of fineness of form and a resolution of disharmonious elements rather than a surge of creative emotion carrying in its wake baffling theories and erotic thought soarings. He does not often intellectualize far beyond the bonds of commonsense, he possesses a love of the concrete, of healthy physical relaxation, a lack of sentient imagination, and exhibits an incapacity for great emotional sufferings. Love of home, of seeing things run smoothly, a belief in the ultimate success of enterprises, in efficiency and rightly directed effort typify the Englishman.

Although differing psychically, rather, as we shall see physio sociologically, as individual types of nations, England and Scandinavia are basically alike in that they both are representatives of the Teutonic type. The difference between them as states is one of degree rather than of form, for both are monarchies, and have been so since the foundation of goverment in each of the countries. Both have a long political history, but England's is full while Scandinavia's is scanty. Both have democratic elements in their monarchical form of government, and both nations resist encroachment upon rights. The institution of forms of justice in Scandinavia antedated England's judicial system. The creed in both countries is Protestant. The English form of worship differs, however, in being more similar to the Catholic creed; in Scandinavia, nevertheless, the Swedish church follows many Church of England ways. Independence of thought is more pronounced in the Scandinavian churches than in the English. Norwegian and Danish Lutheranism have allied on many occasion very strongly with the opponents of Baptist ritualism and formalism. It is this type of religiously protesting mind which calls up a striking difference between English and Scandinavian Teutonic traits.

Although the English and the Scandinavians are in some sense very blood brothers, they are in some ways very much like strangers to each other. The type of Scandinavian mind inclines to be dogmatic-emotional while that of the English critically-intellectual. Both types of mind base their activity on reasoning, but the critically-intellectual or English mind reasons by selecting from all known premises the fittest and holding to it until the acquisition of fresh data sets up a new criterium: the dogmatic-emotional type of mind, on the other hand, reasons from one premise logically arrived at and tenaciously held in face of opposition. This latter type of mind is represented by certain churchmen of Norway and Denmark. The disposition is domineering and emotional; the mysticism and melancholism of the Danish Inner Mission, for instance, show to what extent this trait is pronounced under some conditions of Scandinavian life. Mysticism, reserve of inner spirit, and philosophic questioning, salient marks of the true Teutonic character, are indeed more forcibly expressed by the Scandinavian than the English temperament. The English disposition is domineering and creative. The aggressiveness of the Englishman is the insistently maintained aggressiveness of dominance, and the English fighting spirit is a well known example of the trait. Creative ability follows the national character in being utilitarian and rationalistic. The rationally conscientious attitude is the mold of the Briton. True, he is convivial to the extent of loving sports, outing life and physical perfection, but it is in the balance preserved in an Englishman's life which shows his rational conscientiousness. His is the critically intellectual type and judged by sociality, intellectuality and morality belongs to the category of sociality, which category expresses a combined intellectuality with morality and a broad con-

sciousness of kind. The Scandinavians, on the other hand, belong to the category of morality. Norwegian, Danish, and Swedish traits express their strongest individuality in the spheres of religion and social rights. Rationalistic but dogmatic. The habit of thought is inductive and showed itself in the evolution of the Protestant form of worship, and the constitutional form of government. This type combines an austere character and a domineering, but in the case of the Scandinavians, also a convivial disposition. Certain Danes are convivial to a marked extent. In Norway there is an emotional, loquacious, and susceptible character to be observed in the people of the south-west coast.

The Scandinavian Nations. If while as we have seen England's rise to greatness is due not only to the character of her people but to geographical isolation and freedom from devastation, what may be said of Scandinavia in this respect. Scandinavia if represented merely by Norway and Sweden is also geographically isolated, and even including Denmark this fact is true to a limited extent. If to isolation is due England's prominence as a world power, the same ought to be said of the northern country. Scandinavia's lack of prominence must, however, be attributed to her long winters, barren soil, low temperature and mountainous confines, for these have proven obstacles to development. The mountainous districts of Norway have hindered agricultural pursuits; they also have contributed to the development of the character of the people, such as the gloominess of soul and the tendency towards introspection of the Norwegian valley dwellers. Northern adventuring traits, admirable in displaying the physical strength and virility of the Scandinavian nations were yet indicative of immaturity and incompleteness. Viking raids were not followed up

by constructive effort, and thus the opportunity for Scandinavian world power was neglected. This fault was due to a characteristic of the northern temperament, the obsession of a one-idea. Scandinavians pledge allegiance to a goal and leave no stone unturned to reach that goal, but once having attained it their ambition subsides. This devotion to an end often brings about incongruities and sharp contacts. Art in Scandinavia expresses this singleness of purpose. Scandinavia is a land of contrasts, vividness and fatality. The northern artists love color, and luster. Brilliance in court life characterized the reign of Gustavus Adolphus in Sweden and the ministries of the Bernstorffs in Denmark. Brilliance is contracted with melancholism. The power of faith is strongly felt. Northern philosophy passively accepts the imposition of natural odds, and recognizes as part of every day life the oppression of nature's forces.

That these natural forces have played a large role in the formation of Scandinavia as a racial unit cannot of course be doubted. Definite knowledge of Scandinavia's racial origin is however lacking. The Neanderthal man of the paleolithic or diluvial period may be the foundation type of Scandinavian races as of other European strains. At any rate it is believed that two race strains, the Cro-Magnon or dolichocephalic and the Dissentis or brachycephalic types, have existed in Scandinavia for a very long time. During the bronze and iron ages there were men in Scandinavia who ploughed and tilled the soil. The waves of civilization which no doubt swept over Europe touched the northern countries as well, and brought changes in industry and language. At the dawn of history two races were known to be exisiting in Scandinavia and till to-day there are two distinct strains to be observed in the population. History, however, has emphasized one

type to the exclusion of the other, and the tall, fair, blue eyed type has received more than its merited share of attention. Pytheas' description of the "Hyperboreans" was that they were fair, tall and strong. Industries in the far away land of the north wind included hunting, cattle raising and herring fishing. About 400 B. C. Norway, Denmark and Sweden must each have begun to develop some sort of individual cohesiveness as is told in the mythical stories of Odin giving these countries to his three sons. That history really began when the Saxons were already established in England is proven by the likeness between the land systems in the two countries. From the peasant land holders there eventually sprang up concentration of power in one king, and Denmark was founded around the sound, Sweden around Lake Malaren, and Norway on the North Sea boundary of Sweden.

Besides the identity of their land system, great similarity characterized the tongues of these respective countries in the earliest of Saxon times. Not only could an Icelandic bard be understood in Norway, Denmark and Sweden but also by Frisians in England, for the root dialect of English as well as Norwegian, Danish and Swedish belongs to the Teutonic branch of the Indo-European stem, according to Prof. Max Müller. The Frisians in coming to Britain brought their Low German dialect with them. The Scandinavians using another but related dialect, gradually built up their separate philological system, as the English eventually did theirs. Dialect precedes language, as tribes, clans and families precede the state. A language grows by stages, there is the composition of roots, the gradual discernments of meanings and the systematic elaboration of grammatical forms. In the old Eddas of Iceland and the Beowulf of Britain great resemblances of speech are to be found. Nevertheless, with

the passage of time differentiation sets in and new forms are evolved. The Norman tongue, which was the Norse dialect Latinized, came to England to mix with the old Frisian Low German, and a new language eventually to be called English sprang into existence.

Early people were accustomed to clothe their words with high imagery, and it is this imagery and content which reflects the traits of a people more pertinently than their form of speech. The Ayran theory which obtains little credence from anthropologists is recognized to a certain extent by ethnologists and philologists. Indeed the claim that western Europe obtained her culture from the East is believable in the face of the similarities which exist between Teutonic myths and Sanskrit traditions. That the members of the Teutonic family have traits of mutual likeness is surely proven by the sway which certain folk tales have had in Scandinavia, Germany and England. While the conception of Ydradsil, the Tree of Life, never has had such a hold in Britain as it had among the Teutons on the continent, nevertheless, there are tales of the Norwegian "little people" which are faithfully repeated by the Irish stories of fairies and elves. The Icelandic tales of ships and marauders, of pillages and conquests are prepared in Beowulf, and reflect a common racial heritage. The advance of the Christian faith was a means of turning many a tale of paganism and heathendom into altered form. Custom and practices changed too with the advent of Christianity. The mistletoe shed its ancient pagan luster to take on symbolism under the Christian faith. Easter customs to-day in Scandinavia and England are often relics of pagan ages. The very formation of the Scandinavian parliament is traced to the *assize* which originated in days when assembled throngs of commoners were accustomed to gather about their leader or king stand-

ing upon the old *tumuli* upon which centuries before the worshippers of Freyr had been wont to stand. Customs originate and traditions gain momentum down the years. Many a Norwegian village tale is no doubt repeated word for word to-day in Cornwall villages, and in this link between the countries we see more plainly than in any other way the marks of a common ancestry which we have taken as type.

Thus the ruddy, fair haired Englishman is akin to the tall, blond Swede and the short dark Welshman is akin to the broad headed Dane in the respect that in the beginning all have had a common ancestry and ethnological breeding. That one can go farther and say that from these similarities other similarities result is doubtful. True as it is that we have seen that Scandinavians agree in reproducing Teutonic type identically with the English in some respects, in the Protestant form of religion, in the nature of their government and in their common qualities of love of independence, self reliance, common sense and in their allegiance to the principles of logic, nevertheless, in many other respects these two representatives of the one type do differ strikingly. They differ in the quality of their great men and they differ in innumerable manifestations of temperament and disposition. In short, we can say that although physically they agree in type, sociologically they are very far apart in their expression of this type. The gap of difference widens or narrows according to the point of view.

CHAPTER III

THE ALPINE RACE

ANTHROPOLOGICALLY distinct from the Teutonic type is the Slavic, Celtic or Alpine type. Differing not only in stature and colouring but markedly in head index, this second type has, in contradistinction to the Teutonic, its own location and geographical setting. It is the Eurasian race mentioned by Sergi, or the Alpine by Ripley, and in ethnological terms it is called the Celtic race. Its habitat is broadly speaking north-western Asia and central Europe. Its representatives are the Slav nations, Russia and the south Slavic states, Serbia, Roumania, Montenegro, etc., also Switzerland, France and Belgium. Authropologically distinguished, the type is broad headed, mediumly tall of stature, dark or chestnut haired, with eyes of blue or gray. Unlike as are the nations included in this type, nevertheless, distinguished from the other extremes the tall, fair and long headed Teutons, and the short, dark, swarthy Mediterraneans, they are easily recognized to belong to an intermediate type.

France and Russia may serve to represent the second or Alpine race. Unlike in some anthropologic ethnographic and sociologic respects, these nations nevertheless have certain bonds in common. In regard to the anthropologic type there is a likeness of components rather than of wholes, for it is to certain strains in one that the other agrees. If we take head index, which, as was stated above, is the most constant exponent of race, we judge that because the Russian and French are to be found

in the brachycephalic or broad headed classification, these nations belong to that racial strain which differentiates itself from the Teutonic on one side and the Mediterranean on the other. Further, if with Sergi we make a broad classification as to Asiatic and African divisions of European races this race would be denominated Asiatic. To do so is not to make any sweeping claims that it originated in Asia, for the general doubt as to the precedence of dolichocephals or brachycephals embraces Asia as well as Europe. In trying to locate anthropologically the earliest man in Russia and France we may not go any more clearly or any nearer to the root of the matter than to touch the doubt which we have expressed above. As to historic evidence of the men who lived early in Gaul and on the Russian plains, it may be said that Gaul was inhabited by what in ethnology are called Celts, broad headed individuals who were mediumly tall: in Caesar's first conquest of the Gauls he found such men called Belgae, Gauls and Iberians and Tacitus wrote of the Scythians living in the Carpathian mountains. Soon however in both districts changes occurred. The Gauls (and Romans) in France were overrun by invaders. Three contingents came, the Burgundians, the Visigoths and the Franks. These were Teutons. They came from the Rhine country, and mixed significantly both sociologically and anthropologically with the Gauls, so significantly that to-day the original Celts plus the Germanized Celts may be said to be the basis of the French population. That the same thing was happening in Russia was shown by the very origin of the name Russia. The Scandinavians, mainly Swedes, were migrating from the north, touching Novgorod on their itinerant trail to Constantinople, and were thus contributing a Teutonic element to the eventually to be formed Russian nation. Consequently to-day Teu-

tonic elements are mixed in both the Russian and French nations.

The Russian Nation. But it was long before the evolution of the finished French and Russian states that these events took place, and in the east the mixture was destined to become increased to a yet greater extent before the real Russian nation was evolved. The early history of Russia is briefly told: the patriarchial family, the growth of the towns, the rise of the early cities of Kiev and Moscow, the growing power of the Boyars and of the princes, and the final concentration of power in one prince at Moscow, constitute the account. Early history thus politically told must also note the great anthropologic changes which have played a role in Muscovite history, that is, the Finnish and Tartar inroads which have been made upon Russian unity. Finns from the north came down to what is now known as Letto Lithunania. Tartars from the East, Chinese Tartary, sweeping over the immense Russian plains brought an Asiatic influence which was to affect Russia, but sociologically and ethnographically more than anthropologically. Nevertheless, Tartar strains are present in Russian type and character, and no mention of type can neglect either Finnish or Tartar traits.

These Finnish and Tartar invasions into Russia illustrate a mixing of the great races or racial strains, for yellow skinned men amalgamated with the white skinned. Mongols, either as Finns, Tartars or Turks represent a striking difference in race from European types, and yet to the mixing of this stock with European Alpine is attributed the evolution of a people such as the Russians. The Finns coming far south have contributed more than one legacy to the Great Russian type of to-day in the short stature, small gray eyes and broad skull of that type. Further, Tartar traits are

Mongoloid traits and the prominent cheek bones as well as the psychic attributes of servility, qualities of endurance and liking for secrecy and ruse are vestiges of Asiatic origins. That the Tartars were Turkish is believed by Beddoe as stated in his classification of European Asiatic types. Tartar or Turkish traces are seen to-day in the Great Russians, the Little Russians and the White Russians, who make up forty, ten and three millions respectively of the present Russian population. That the traces are mostly of a philological nature is granted, nevertheless, certain character distinctions are also made. The Great Russian is more Finnish than his southern brother and is stolid, tough, capable and the pioneer of Russian initiative, while the Little Russian is, on the other hand, alert in mind, imaginative and lacking in the force of the Great Russian. While, however, doubt may be expressed as to whether such traits of servility, endurance, wolflike suppleness, secrecy and a liking for ruse are really to be found in Russian character, it is nevertheless less a matter of conjecture that to the Tartar invasion can be traced certain political and national happenings in Russian life. The reign of Ivan the Terrible may never have happened in just the manner it did if it had not been for the Tartar Khans. Terrible as he is called, nevertheless, Ivan succeeded in consolidating Russia and strengthening the national church. Contemporaneously with that reign began Moscow's rise and with it the growth of the Boyar or noble class. While on her frontier Russia was extending north, east, and south, to the Ural Mountains, Caspian Sea and Caucasus Mountains, at her center the tendency towards absolutism was working disastrously. After the strong reign weakness set in which lasted until the reign of Peter the Great, whose services however in reviving national life succeeded in placing Russia in

rank equally with the other powers of Europe. Catharine the Second, following Peter in greatness of service carried out many of his ideas, and thus an improved Russia was able to enter upon her nineteenth century of Napoleonic wars, of liberal agitation, of imperialistic policy, of serfdom freedom, and of conflicts for expansion with European powers.

Political expansion has never in the sphere of Russian activity meant economic or industrial expansion. An antiquated land system, an exchequer which accomodated needs but which never tried to carry the world's credit, and a manufacturing equipment sufficient to contribute to the country's own wants, are the institutions which characterize economic Russia. Commerce, which is an expression of world wide industrial contact, has been lacking in Russian economy although in some agricultural respects this country is one of the greatest producers of the earth. Russia is rather the expression of but two concepts, the state and the church.

The state is autocratic and despotic because a Russian loves the aristocratic principle and because his type of mind is dogmatic emotional. Because of a lack of a reactive principle such as democracy among the people in England, Russia has from the beginning of her career steadily grown towards absolutism. Further, because Russia unlike France has never thrown off autocratic monarchy, an explanation of such a pronounced tendency must be sought deep in the national character. Love of traditioin, moral indifference and an aristocratic cast of mind are the traits which elaborate this tendency. Indifference combined with independence of character is shown by Russians from the very beginning of their statehood. The struggle of the princes with each other and with the nobles, and the acquisition of landed property by churchmen and nobles, all tended towards fostering absolutism. It

was a phenomenon of extremes—absolutism, but absolutism yoked with the long continued custom of serfdom.

The church is an echo of the state, and also a restatement of Byzantine power. The Greek Orthodox creed appeals to the Russian seeking consolation from the bleakness of life in the fantastic ornamentation of the altar, for dogmatic, imperialistic and domineering as is the church, her emotion is her love of display as her cardinal virtue is her love of conformity. The church appeals to the tradition-loving Russian; it also touches the pride of patriotism, for to be Russian is to be orthodox. The capacity to accept this their state craft and their church rule shows a character trait of passivity in the Russians, a moral willessness which seldom revolts either morally or artistically. Conservative and creative impulses have only been shown by the Russian people in spite of the handicaps which the state and the church have imposed upon national life.

These handicaps have helped to foster extremes of thinking—radicalism and nihilism. Because the Russian mind is adaptive, imitative and keenly perceptive it works quickly, often to sweeping conclusions. It is a logical mind, of the deductive variety. Keenness and lucidity of thought predominate at times to the exclusion of creative ability. Intellectually the Russians are generally speaking artists rather than scientists. Russia has the artistic temperament but lacks creative ability. Absence of will power may explain Russia's failure to qualify as a contributor to concrete expressions of art. It also explains Russia's lack of a fully developed sociality. The Slavic individual is prone to live in the present and to discount the burdens of the future. This disposition produces gaiety and melancholy; it also explains bad management of personal affairs and the prevalence of trifling civil crimes.

Personal traits thus contributing to disposition, character and type of mind distinguish the Russian people from the Teutons on one side and from their fellow Celts, the French, on the other. But it is in the likeness to the French rather than to unlikeness that we see the close relation of Russian to French type. The Russian instigative disposition matches a like strain shown by the exercise of French diplomatic talents. Richelieu and Mazarin are reproduced in miniature in many a petty Russian official of the present. Character, too, among the two people classifies similarly. Convivial rather than forceful, austere or rationally conscientious, the Franco-Russian character in combining with the instigative temperament does not, however, produce a type which is ideo-emotional. Russian type of mind judged in regard to the qualities expressed in its creed and state policy is rather dogmatic emotional than ideo-emotional, and the French, on the other hand, judged from their critical and creative disposition and character are rather critically intellectual than ideo-emotional.

The French Nation. The French type is convivial in character and creative in disposition. The French social traits of hospitality, desire to please, humor, and extravagance show their conviviality. These character traits are governed and held in check by the creative power in the French disposition, which seeks thrift and the adaptability of means toward end. The French middle class with its serene mediocrity, its neat tidiness, and atmosphere of tranquility, illustrate the working out of this trait. The convivial character leads to the expression of certain moral manifestations, the extreme super-severity of the devout *religieuse* as well as the licentiousness renowned in the history of French courts of past centuries. Furthermore, in the sphere of morals the possession of a distinct power, the

will, distinguishes French from Russian personality. French disposition in being distinctively creative shows the evidence of will. It is will power applied to the vanquishing of acceptable odds, however, rather than to the overturning of repelling obstacles. The rationalism of the Teuton is absent. Intellectually, thinking approaches the Latin or Mediterranean type, for it is deductive. The Code of Napoleon illustrates this. Unlike the Saxon common sense thinking, there is a tendency to intellectualize for intellect's own sake. With it all, however, the French mind is prone to seek balance. This is supplied by the critical habit.

The critical attitude portrays the Frenchman most conclusively. In art and literature, in the church and in matters of statehood this attitude is repeated continuously. Literature rising with the French nation and expanding contemporaneously with territorial growth has displayed the development of the French love of technique. That this trait has outlived the concrete expression of territorial expansion only serves to show the pure artistry of the impulse. Science and industry, inherently unakin to the Celto Slavic personality, has failed the French as the Russian. World empire merely meant the perfection of diplomatic arts, thus it was destined to fall, and show the lack of Celto Slavic contribution to the commercial phase of sociological life. With religion and state organization the Celto Slavs regain their own. True, religion in France at the present has no hold comparable to the sway of the church in Russia. Protestants, aetheists and Roman Catholics split the nation. The growth of the French church has exhibited no such close connection between state and creed as existed in Russia and England, for example. That the church and state have been allied is due not so much to the interconnection of the two as the fact that church-statehood was a common phe-

nomenon of all the nations of the Middle Ages. Nevertheless, in spite of all, it is true that France has had her religious types, her civil-religious Huguenot wars, her kings blessed by the popes, and her struggles for the freedom of unbelievers.

The very growth of the French state is based upon the idea of unity supplied by the Roman Catholic Church. The development of the French state, furthermore, is also an expression of the critical attitude of the Frenchman. Discarded monarchism, experimental communism, retried monarchism and eventual democracy shows an inductive train of thought processes exhibited by a people judged deductive from the point of view of religion. Briefly the history of France is the history of the growth of a state through absolute monarchy to democracy. It is a record of absolute monarchy broken down by the force of the Third Estate, the eventual submergence of this body in its own dregs, the trial of various governments, and the final unification of governmental efforts in the commune of France of to-day. That the futility of unlimited monarchy was only learned in France after centuries of experience is proven by a survey of the record of the years which passed between the time when Louis XIV announced "L'etat c'est moi" backwards to the days of the Capetian kings, a period which included the era of the rivalries between court parties, between the conflicting ideas of the Reformation and the Renaissance, between rival powers, France, Italy and Austria, and the era when the early Capetians sought to establish a unified monarchy in spite of the opposition of the rival Gallic princes.

The France of Charlemagne had been but a partial state. It was also but partially French. Anthropologically France is Teutonic as well as Alpine. The three Gallic states had been German, Roman and Celtic.

The Aryan theorists people Gaul with a Celtic type which practiced industries akin to those of all western Europe in the bronze and iron ages. Roman occupation did not affect the anthropologic type for Rome in changing the language, establishing schools and building roads, affected Gaul sociologically and ethnologically. It remained for the Germans to change the anthropologic type. The big, blond Teutons who came in the centuries immediately preceding the Christian era changed Gallic type as well as culture.

Early life in France and Russia centered round the primitive unit, the tribe in France, and the clan in Russia. In each country the unit was quite separate from all others. Each French tribe lived by itself with little or no power of combining with its neighbors even for purposes of war, as for instance to repulse the Romans when they came as conquerors. In Russia the independence of the units was caused by the great territorial distances which separated the tribes. Each group was and necessarily had to be independent. Leadership was vested in the father, later the priest and the military ruler. Heredity leadership thus characterized Russian government; Gaul on the other hand was controlled by elected chieftains. Religion in the latter country was of a distinctly hierarchial form: there were Druids and a set system of rites and practices. Religious myths developed in both countries, but it was not until well into historical times that there emerged distinct accounts of heroic cycles. The Chanson de Roland illustrates the French celebration of a hero akin to the English Arthur, that is, Charlemagne and his battles with the Saracens. This epic is written in the Langue d'oil, a dialect which with Langue d'oc was formed when Greek and Roman tongues inserted themselves into the original Gallic tongue. Of the original tongue no trace exists to-day. Even the Ger-

man tribes, the Burgundians and the Franks, did not succeed in displacing the tenacious hold which the southern tongues had taken. Basque, however, a renegade of an Asiatic tongue which exists to-day in the Pyrenees Mountains serves as a basis for founding an exception to the complete Latinization of the French. It is distinctly non-Aryan, as Finnish is non-Aryan. The Finnish element exists in the dialects of the Great Russian and the White Russians, that is, there is a likeness to Asiatic tongues; structurally, however, these dialects are Aryan. Little Russian bears comparison to Sanskrit. Further, while belonging like the French tongue to the great Indo-European stock, Slavic differs from the French language in bearing more distinct resemblances to the Teutonic than the Celtic branch.

When besides Indo-European traits there are thus to be observed Turanian or Asiatic traces in Russian and French tongues, it may be possible to go a step farther and assert that Asiatic ethnic traits are also to be reckoned with in definition of Celto Slavic type. A conclusion of this sort leads to various consequences: Asiatic ethnic traits may invalidate the claim that Alpine or Celtic type is European at all; on the other hand ethnic traits may not be able to determine anthropologic type. If it is concluded, however, that anthropologic Asiatic traits are just as prominent in the Russian people as ethnological Asiatic traits, the classification of Slavic type as a European Alpine type may perhaps be fairly enough denounced. On the other hand it has been stated above that according to Sergi, this brachycephalic race is Eur-Asiatic, in other words, Alpine type must in all sincerity include Asiatic traits because it is based on a variety which originated in Asia. Upon this ground the two representatives of the Alpine type, France and Russia, which we have been

considering are rightly exponents of the Alpine or central European type. The likeness and unlikenesses between the two nations strengthens this point, for in anthropologic, ethnologic and sociologic manifestations there are to be observed more similarities than dissimilarities.

Russians, formed of Slavic, Asiatic and Teutonic strains, show in their average brachycephalic skulls, their brown hair, gray eyes, and medium stature similarty to the brachycephalic and mediumly dark French, formed of Celtic and Teutonic strains. Ethnologically they differ as to language. Sociologically they are alike and unlike. In the possession of psychic traits, Russia is akin to France emotionally; morally Russia lacks France's will power; intellectually both people are of the deductive type. Judged by the categories of intellectuality, morality and sociality, both nations belong to the category of intellectuality. In the expression of sociological achievement, France and Russia are alike and unlike. The state in Russia is theoretically a limited monarchy, but with an autocratic star, in France a parliamentary republic; the church in Russia is Greek Orthodox, in France Roman Catholic; in art and literature, France has excelled Russia in the production of concrete effort, while finally in industry and commerce both nations fall behind the record produced by the Teutonic countries.

CHAPTER IV

THE MEDITERRANEAN RACE

ITALY best represents the Mediterranean type. This nation, furthermore, is to be taken as the single representative of the last named of the three European races because it presents two types of civilization, the Roman and the Italian. In its way it more fittingly contrasts with England and Scandinavia as representatives of the Alpine type than would two separate nations taken in a group, as Italy and Spain or Spain and Portugal, for instance. Although all the western districts bordering the Mediterranean Sea repeat the Mediterranean type, it is to Italy particularly that we look for the greatest historical and cultural manifestations of this type. And yet Italy itself constitutes an anthropological problem. By whom was it peopled and how was it settled? Many theories are offered in explanation. Three contrasting theories of original Italian type have been advanced. The Teutonic Aryan has been said to be the foundation type, also the Scythian or Slavic origin has been suggested, but Sergi holds to an original Mediterranean type. Earliest man dates about the tertiary period. The skulls of that epoch were dolichocephalic it is believed —Neanderthal-like but not Neanderthal nor Turanian. These prototypes of the present-day "wine-drinking, lettuce-eating Italians" must have been small, slight and dark, but very little is known of them. Names are given to old tribes variously as Umbrians, Oscians, Vituli, Etruscans, Latins, Sabines and Pelgasians. The Mediterranean type peopled more than the Italian peninsula, it must be remembered; Babylonia, Assyria,

Egypt, and Greece had civilizations which were expressions of the culture of the men of the Mediterranean. This ancient civilization of the Mediterranean world is one of the strongest proofs against the possibility that the Teutons peopled south Europe. Established in Asia Minor, Africa, Greece, Italy, and the Iberian Peninsula, the Mediterranean men can easily be divided into four divisions according to location, the Iberians occupying what is now Spain and Portugal, the Ligurians Italy, the Pelasgians Greece, and the Libyans North Africa.

The Iberians, Ligurians and Pelasgians were similar to each other in ethnic type. The Pelasgians and Ligurians were in fact closely associated with one another in history, as the old descriptive accounts of early Italy show. Similarly, in architectural forms is a likeness which is to be observed between the two countries. Pelasgians were architects, also agriculturists and worshippers of the sun. Through the myths and festivals, for instance, the festival of the triumph of the sun's disk over the rainy months of winter, a strain of likeness is thought to be traced. This point is used as a justification of connecting the early Ligurians with the Scythians, thus making the Mediterranean type a form subordinate to the Slavic. Pliny and Livy described the old Italic tribes, the Pelasgians, the Sabines, the Etruscans, etc. But although Etruscans are mentioned in a descriptive way no explanatory discussion of the origin of this particular brachycephalic Italian population has ever been satisfactorily determined. The question stands to-day, Who are the Etruscans? as undecided as the Basque question in France. Some writers say the original Etruscans were Rhaetian, northern brachycephals, others say a people from Asia Minor. Sergi inclines to believe that dolichocephals and brachycephals met in Etruria and mixed. At any rate to this

mixing of types is attributed the remarkable character of Umbrian and Etruscan civilization. Language and custom witnessed to the brilliancy of this culture. The very founding of the Eternal City, according to Ripley, is due to Umbrian, Oscan and Tuscan factions, as can be seen from comparison of old records such as hymns, chants and old laws relating to regal usages.

The Roman Nation. Unlike as are the racial elements represented by the various old Italian tribes, the unlikeness of components, nevertheless, did not hinder the formation of one of the most brilliant empires the world has ever known. Rome sprang into existence upon the racial soil of Umbrian, Oscan, Latin, Sabine and Etruscan civilization. Many a contribution may have been made but it is mainly by what Rome in her turn has contributed to posterity that her significance is judged. Built upon seven hills, or three towns, according to whatever version of old, half-mythic stories is believed, Rome was supposedly governed by a king, or *magister populi*, and a senate. At all events it was at the head of the empire when Hannibal came to invade Italy. Based on the authority of having welded together various Italian provinces, based on an authority founded on slavery moreover, Rome gave a standard language, a standard coin, and a standard law to all the civilized world. The Roman tongue was Indo-European, and the temper of her statehood imperialistic.

Thus Italy until the end of the fourth century was economically brilliant, politically dominant and the master power in the world. Intellectually superior, she had already established her position as head of the church. With the turning of the fifth century, however, came a change; a change which was to be manifested anthropologically, ethnologically and sociologically. The barbarian attacks signalled the change.

Three successive divisions of invaders are included in the entire invasion, which affected the Mediterranean type by the infusion of Alpine and Teutonic blood. The Ostrogoths from the Danube country were Slavic brachycephals, the Lombards also, and the Franks entering Italy from France were Teutonic Gauls. To these three successive attacks of foreign intruders Rome was called upon to impose an opposing front, but being unable to resist she succumbed and incorporated the new members into her state. The imperial policy was strengthened to be used as a disciplinary force in the hand of the now ruling barbarian chiefs, and the church, furthermore, was made the recipient of the Gothic stamp, for the division of the East and West Empire was fostered by the rivalries which grew up between various factions, the Ostrogoths, the Lombards, the Franks, Byzance, and the Papacy. These three types of northerners, Ostrogoths, Lombards, and Franks differed in the elements which they contributed to Italy, as is shown by the events which they brought about in Italian history. The Lombards who came in 553-568 were less civilized than their predecessors, the Ostrogoths. The former overran the northern part and a strip of central Italy, but they did not penetrate to the eastern shore and always remained north of Rome. Umbria and Lombardy since the days of the barbarian inroads have been differentiated from the rest of the population of the country, and Italy is today like a cloven hoof, so unlike to its southern is its northern part. The Franks also added a Teutonic element to the north, which is evident in our day in the Germanized traits in the Piedmontese valleys. In the days of the infusion direct political values were to be drawn from the north Italian district. The Lombards in uniting against the church at Byzantium helped to maintain the Papacy in the west, and although

from want of a centralized government the Lombards were destined to lose their hold on Italy, their successors, the Franks, were also to play the role of political factors in Roman life. In contributing Pippin who aided the Papacy against the Lombards and the Eastern Church, the Franks were to congratulate themselves with the superior distinction of having founded the great Holy Roman Empire. Charlemagne's coronation in 800 opened a new political era for Rome. With the decline of the old Empire politically and intellectually, came the birth of a new empire, which with its gradually rising satellite the Italian nation, was to stretch its way into the future and rear a new structure on the physical basis of the old Ligurian race.

The Italian Nation. Throughout the course of history depicting the Italian type, two forces are to be reckoned with as most prominently, and almost exclusively, formulative of Italy: they are the forces of the sociological institutions, church and state. The church has been more effective, but the church has also been a universal force, therefore it was a factor affecting Europe generally as well as Italy particularly. Religion, especially the Catholic faith, reflects formulating Italy most vividly. Nevertheless, from the time of prehistoric origins to the introduction of Christianity, religion played no great rôle in the Italian world. It was after the Christian era, in fact, from the birth of Christ to the fifteenth century that the church's supreme significance became so evident. Early Roman religion was animistic; emphasis was laid on the concrete unimaginative side of worship: man knew or cared to know nothing concerning the actions of his gods; Vesta was the goddess of the hearth but that she must be something more was only vaguely sensed by the Roman mind. Propagation characterized the physical aspect of early religion. That animism, however,

gradually gave place to other forms of specific worship was natural as the Romans grew in sophistication. The Etruscan culture made a contribution. To those theorists who trace the Etruscan element to the East, it seems probable that Babylonian elements are to be observed in the contribution which Etruria made to Roman religion.

Paganism, however, eventually gave way to Christianity and with the change to a different set of thought processes and incentives to action came an alteration in the characteristics of the nation supporting the transition. At first there was a great contrast between the national character and the new religion, between the humble Jewish sect in Rome and the imperial magistrates. The authority of St. Peter had no easy battle to fight with philosophical Eastern cults, ancient civilizations and Roman authority. That it did win out is reflected in Constantine's establishment of Christianity as the state worship, an organization with its spiritual head in Constantinople and its civil administration in Italy. The heyday of success attesting the reversal of the national mind from Roman to Christian is witnessed by the triumph of an Augustine and a Benedict over the ideals of an Octavius and a Diocletian.

That the ideals of an Augustine and a Benedict, however, had in them the eternal elements of power is shown by the successive conflicts through which the church and the nation had to pass—conflicts with dying Rome, conflicts with failing temporal sovereignties, conflicts with antagonistic religions, and with decadence in the church itself. Expressive of the Italian character as the Popish church is, it shows the rise and fall of a nation that was ever expectant of universality and ever destined to disappointment in that expectation. The church represents Italy as she stood figuratively on tiptoe, it represents Italy and Rome side by side, it also

represents the Italy of to-day with her still dominant church interest. Taking all the political and economic unity of the old world, as she did, adapting the administrative idea of ancient Rome to a new empire, playing her Lucullus and her Scipios over again in the world of ideas and beliefs, Italy has pursued a line of conduct in church statehood which can be equalled by no other world power.

Constitutionally, Italian life has passed through four successive states, a kingdom, a republic, an empire and again a kingdom. The earliest knowledge of Roman history is that the government was kingly, a *magister populi* ruled the people. But this fact like the statement that the earliest organization was the unit form of the *curiae* are only bits of partial knowledge. Like the suggestion of the leagues of the twelve cities of Etruria and the thirty cities of Latium, these facts belong to a period too obscure to be described accurately. With the disruption of monarchy, however, and the establishment of a republic there occurred a more clearly defined period of action. Under the new order, of magistrates chosen by the people, the patrician city took on a significance which it was never to lose in the subsequent roll of Italian history. But struggles between aristocratic and democratic elements in the population attended the full expansion of cities, and eventually led with other causes to the erection of empire. But the sway of the little city-states continued uninterrupted throughout the vicissitudes which assailed the empire and, with the coming of the "barbarians," it was these very city-states which offered material for the building of a Holy Roman Church Empire. That the warring element of strength and weakness in states was destined to outlast the Holy Roman Empire itself is instanced by the long continued contests between the Guelfs and Ghibellines. Made up of several promi-

nent states as well as numerous smaller ones, Italy had to face the problem of searching for national unity among such component parts as the Kingdom of Sicily, the Kingdom of Naples, the Papal states, the cities of Florence, of Venice, of Genoa, the duchy of Milan, etc. That the lordship of cities was great is evidenced in the glory of the trade of Venice, her Orient traffic, her sway over dependent provinces and her almost regal splendour. Even into the nineteenth century city aristocracy obtruded as a hindrance to national unity. Spanish and French rulers have taken their hand at remodelling the government, and Italy has had to contend with an almost hopeless problem of state individualism. Feudal south and democratic north Italy present even to-day, after Garibaldi's successful establishment of the principles of unity in 1860, a very diverse pattern. Although Italy is now consolidated, although the Vatican mixes very little in schemes of federation and restricts itself to certain well defined circles in the political sphere, Italian nationality is really only an idea of very modern growth won at the cost of foreign oppression and internal discord.

It is easily seen that statecraft in Italy reflects national character to a great extent. Fully illustrative as are Italian court schemes of the purely instigative disposition and, particularly in the older ages, of simple aggressiveness, it is nevertheless clearly recognizable that Italian personality, formed of many diverse cultural elements and playing a long rôle in history must be a very complicated affair. Because two civilizations have contributed to the formation of the Italian individual it is no exaggeration to say that sociologically he is a highly complex unit. Anthropologically Italy is less mixed as a population than many another nation, yet sociologically Italy offers herself as a finely differentiated subject.

Physically the Mediterranean figure possessing a dolichocephalic head index, short stature and dark hair and eyes is accepted as the usual Italian individual. Brachycephals are found, however, in the northern part of Italy, "the cock pit of the nation," as it has been called. In that district traits which differ psychically are also to be found; those emotional, volitional and intellectual traits recall the mixed elements which have contributed to the Italian personality of to-day.

Italian disposition is a combination of the aggressive and instigative,—aggressive as old Rome was aggressive, and instigative as have been the cabals and political intrigues from the days of Lorenzo the Magnificent to the modern age. In character as well as in disposition the Roman-Italian personality is a compound of two blends, austere and convivial,—austere as were the old law-making administrative magistrates, convivial as the beauty-loving Italian is convivial. If the volitional complexes of the old conquerors were more remarkable than the volitional complexes of their later cousins, it is equally true that the emotional self of the latter is more highly developed than that of the former. In his love of sensuous pleasure, of artistic expression and desire for play, the Italian shows more of a Greek than a Roman paternity. Plastic art, painting, church music, play festivals and public amusement portray these emotional traits.

As Italian disposition and character are complex so is the type of mind. Convivial and impulsive as are the Mediterranean dwellers, the classification of instigative disposition and convivial character in producing the ideo-emotional type of mind does not quite fit the Italian type. This is not the Italian of history, of world action and universal reputation. It is the dogmatic-emotional which predominates in the larger character and which is emphasized in the cold, calm, ap-

praising quality of Italian judgment combined with the hot impulsiveness of emotion, a combination which makes the Italian a past master in the art of revenge, vengeance, cabal and intrigue. Teutonic traits of Lombard heritages are evident in democratic Lombardy. Vigor and power are marks of the northern breed. Intellectual vigor combined with moral corruption characterized the tenor of post Renaissance days, and temperamental jealousy is to-day a relic of the by-gone cynicism. But hand in hand with Italian jealousy there goes a high and sensitive regard to personal honour. Honour is, in fact, based on a vivid imagination, and in the Italian the imagination is intense and swift. The aesthetic equipment of Italians recalls the aestheticism of cultured Rome, but in scientific traits the Italian receives his greatest heritage from early Pagan ancestors who contributed the alertness of sense which makes the Italians such good observers and which, combined with their regard for concrete truth and objective mentality, produces accurate Italian scientific men.

However formed by the inheritance of ancestral traits, the Italian is at any rate clearly somewhat a product of his habitat; climate and geographical situation have contributed to the molding of his body and mind. Whether or not it is merely a matter of statement to attribute the swarthy skin, dark hair and eyes of the Italian to life in a sunny, breeze-swept peninsula in the midst of a southern sea, it is easily granted that the sea faring traits of that individual is due to life on a compact little peninsula bound by a navigable sea and shut off by mountainous barriers from contact with adjoining countries. But although Italy has been a maritime trader, one cannot insist upon this geographically fostered trait as one of the dominant characteristics of Italian life to-day, because as a matter of fact commerce, industry, and mechanical arts are less fully

developed in Italy than in many another country. As with all Latins, so with Italians, commerce plays a subordinate rôle to art. It is in the sphere of emotion, morals and intellect that Italy has won her great sociological achievements, namely, art, church and state. More productive in the realm of art than the Celt, and more productive in the realm of religion than the Teuton, the Mediterranean personality yet falls behind the Teuton in creative expression of governmental talents. Judged by the categories of morality, intellectuality, and sociality, the Italian virtually belongs to none but partakes of the nature of both the categories, morality and intellectuality. His intellectuality differs from the intellectuality of the Franco-Russian type, as his morality differs from the Scandinavian, and yet because of his unparalleled civilization and because of his contribution to the heart of religion, the Roman-Italian belongs to the joint morality-intellectuality category.

As thus men are on the whole differentiated by emotions, wills and intellects, or by feelings, actions and thoughts, the question naturally arises how do these differences occur and upon what are they based? The claim that men are racially different seems to be logically admitted. Upon what then are the differences to be based? Anthropology attempts to answer this question, and sociology to make use of the deductions of anthropology. Is this claim of anthropology valid, or is it erroneous for sociologists to make use of anthropology as the basic foundation for racial divisions? An attempt to answer this question will be made in the subsequent chapters which are to consider the anthropologic, or rather, anthropometric, that is, the systematized and statistical anthropologic, characters of the three types of Europeans, the Teutons, the Alpines and the Mediterraneans.

CHAPTER V

THE TEUTONIC RACIAL TYPE

THE Teutonic type described sociologically and anthropologically gave a general presentation of the Scandinavians and the Englishmen. It furnished no precise delineation of the physical characteristics of these individuals, who were merely stated to be tall, long headed and, on the whole, fair. The task of presenting accurate data for the physical delineation of a people belongs to the domain of anthropometry. The fulfillment of this demand in the requirements of the Teutonic type is the function of this chapter, which will deal firstly with material covering the Scandinavian type, presented tabularly and in a descriptive way, and secondly, with similarly presented material covering the English type.

Scandinavia. Scandinavia, possessing on the whole the pronounced Teutonic type, is nevertheless a land of a certain amount of variety. Broad heads, dark colouring and in some districts short stature prevail. Denmark's population runs towards broadheadedness; Norway has two distinct types, the dark haired, short, west-coast dwellers and the taller, lighter easterners; Norway is also intermixed with Lapps from the north, as is Sweden with Finns from the northeast. In spite of discrepancies blondness is the prevalent colouring, however, a fact which is so uncomplicated that but slight substantiation from statistics is needed. Emphasizing Denmark rather than Sweden and Norway so universally judged blond, and quoting an investigation of some 300,000 children begun by the Danish Univer-

TABLE 1

Hair Colouring of Children of Different Ages and Sex

Age Years	Black		Dark		Medium		Light		Red		Total	
	M	F	M	F	M	F	M	F	M	F	M	F
6	8	13	127	181	502	543	733	649	37	43	1,407	1,429
7	85	126	1,116	1,194	4,077	3,745	5,677	4,764	290	286	11,245	10,115
8	119	137	1,592	1,700	5,673	5,219	6,761	6,081	395	395	14,540	13,532
9	157	160	1,600	1,916	5,702	5,128	6,493	5,705	365	356	14,317	13,265
10	187	167	1,850	2,019	5,919	5,367	6,211	5,647	416	399	14,583	13,599
11	171	206	2,003	2,183	5,935	5,280	5,949	5,223	360	360	14,444	13,252
12	250	201	2,111	2,342	6,157	5,556	5,453	5,762	367	340	14,338	13,201
13	236	246	2,187	2,373	6,126	5,085	4,671	3,949	322	358	13,542	12,011
14	171	206	2,003	2,183	5,935	5,280	5,949	5,223	386	360	14,444	13,252
Total.....	1,285	1,321	13,206	14,384	41,634	36,935	43,087	37,506	2,657	2,599	101,869	92,745

sity Statistical Laboratory in 1893 and continued by the Anthropological Committee now at work on the population of Denmark, it will be seen from the conclusion of that committee stated by Dr. Hansen[1] that "fairness is the predominant colouring." About one-third of all these children, aged 6-14 of both sexes and representative of many districts, are light haired and light eyed.

Of 194,614 children (see Table 1) 41,634 boys and 36,935 girls had medium coloured hair and 43,087 boys and 37,506 girls had light coloured hair. The per cents. for light hair are respectively 22 and 18 for boys and girls. Taking the colour of the eyes of the same 194,614 boys and girls, and dividing into classes of dark, medium and light eyes, it is seen that the greatest number, 63,904 and 57,627 girls, falls in the light class. The percentages for dark coloured are 4.27 for

TABLE 2

Colour of the Eyes of Children of Different Ages and Sex

Age	Dark		Medium		Light		Total	
Years	M	F	M	F	M	F	M	F
6..	120	147	362	360	925	922	1,407	1,429
7..	982	976	3,082	2,650	7,181	6,489	11,245	10,115
8..	1,186	1,235	4,138	3,705	9,216	8,592	14,540	13,532
9..	1,169	1,299	4,067	3,656	9,081	8,310	14,317	13,265
10..	1,242	1,313	4,175	3,829	9,166	8,457	14,583	13,599
11..	1,105	1,305	4,158	3,753	9,181	8,194	14,444	13,252
12..	1,110	1,302	4,274	3,829	8,954	8,070	14,338	13,201
13..	1,133	1,202	4,210	3,585	8,199	7,224	13,542	12,011
14..	266	242	1,150	730	2,037	1,369	3,453	2,341
Total.	8,313	9,021	29,616	26,097	63,940	57,627	101,869	92,745

[1]Hansen, Soren. Om Haarets og Ojnenes Farve i Danmark. (On the Colour of the Hair and Eyes in Denmark). *Meddelelser om Danmarks Antropologi,* Copenhagen, 1907-1911, pp. 314.

TABLE 3.

Colour of the Hair and Eyes of 1,000 Children of Different Ages and Sex

Age Years	Black Hair		Dark Hair		Medium Hair		Light Hair		Red Hair		Dark Eyes		Medium Eyes		Light Eyes	
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F
6	6	9	90	127	356	380	521	454	27	30	85	103	257	252	658	645
7	8	13	99	118	362	370	505	471	26	28	87	96	274	262	639	642
8	8	10	110	126	390	386	465	449	27	29	81	91	285	274	634	635
9	11	12	112	144	398	387	454	430	25	27	82	98	284	276	634	626
10	13	12	127	149	406	395	426	415	28	29	85	96	286	282	629	622
11	12	16	138	165	411	398	412	394	27	27	76	99	288	283	636	618
12	17	15	147	177	430	421	380	361	26	26	77	99	298	920	625	611
13	17	20	162	198	452	423	345	329	24	30	84	100	311	299	605	601
14	21	28	179	203	447	432	330	310	23	27	77	103	333	312	590	585
Average	12	14	130	155	409	398	423	405	26	28	81	97	291	282	628	621

boys, 4.62 for girls, medium 15.2 for boys and 13.0 for girls, and light coloured 32.8 for boys and 29.6 for girls,—percentages which indicate a predominance of fairness. (See Table 2). Selecting 1,000 of this group and reckoning the relative number of individuals per thousand it is seen that of 1,000 of each sex there were 423 boys with light hair and 628 with light eyes, and 405 girls with light hair and 621 with light eyes. While medium hair ranks next, the number of medium eyes to 1,000 (291) is lower than the 409 medium coloured heads to 1,000. (See Table 3). Correlating the results for hair and eyes among 1,000 children the following relations were obtained. (See Table 4). The conclusion reached after consideration of the above four tables is that the Danes are without exception blond. Furthermore, fair hair with all its shades is met with especially among the European populations of the north. There are, it has been computed, only sixteen brown haired out of every one hundred Scandinavians. This leads to the easily estimated conclusion that Scandinavians are on the whole blond.

Stature is high among the Scandinavians. Topinard[2] says the Scandinavians (Norwegian and Swedes) are 1,713 and the Danes 1,680. Deniker[3] places the Swedes in general at 1,705, the Norwegians at 1,720 and the Danes at 1,685. Taking Copenhagen[4] men of the ages 18 to 25 the average heights run:—

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[2]Topinard, P. *Anthropology.* London, 1890, pp. 320-321.

[3]Deniker, J. *The Races of Man.* London, 1900, pp. 581-584.

[4]Hansen, S. Om Legemsvaegt og Legemshojde. (About the Weight and Height of the Body). *Meddelelser om Danmarks Antropologi,* Copenhagen, 1907-1911, Bind I., p. 218.

18	year	old	167.18 cm.
19	"	"	168.22 cm.
20	"	"	169.01 cm.
21	"	"	169.48 cm.
22	"	"	169.77 cm.
23	"	"	169.84 cm.
24	"	"	169.87 cm.
25	"	"	169.87 cm.

Because height is assumed to vary with environment and conditions of health the Table 5[5] given below listing the Danes according to occupation is interesting. But although occupation does influence stature to the extent of bringing the highest index 173.7 of university students down to the 165 of tailors, it does not succeed in lowering the rather high racial average of 169 cm.

The conclusion formerly reached that Scandinavians are blond is now reenforced by the statement that they are tall in stature. Finally, considering head indices, it is found that Swedish heads particularly are dolichocephalic, or mescephalic, a fact stated according to the researches of Retzius[6]. See Table 6. Norwegians are

TABLE 4

Correlation of the Colour of Hair and Eyes in 1,000 Children

	Eyes (Masculine)			
	Dark	Medium	Light	Total
Black Hair	7	3	2	12
Dark Hair	40	50	40	130
Medium Hair	27	166	216	409
Light Hair	6	65	352	423
Red Hair	1	7	18	26
Total	81	291	628	1,000

[5]Ibid.

[6]Retzius, G. and Fürst, K. M. *Anthropologia Suecica. Beiträge zur Anthropologie der Sweden.* Stockholm, 1902, p. 105.

Eyes (Feminine)

	Dark	Medium	Light	Total
Blair Hair	8	4	2	14
Dark Hair	50	56	49	155
Medium Hair	30	156	212	398
Light Hair	7	59	339	405
Red Hair	2	7	19	28
Total	97	282	621	1,000

TABLE 5

Stature of Danes

Number	Occupation	Age	Height
1,523	University students	22.9	173.7
1,685	Clerks	21.3	172.0
129	Farmers	20.9	171.6
129	Glaziers	....	168.9
250	Upholsterers	21.4	168.8
237	Butchers	20.8	168.7
587	Machine hands	21.3	168.7
107	Engravers	....	168.5
320	Fishers, sailors	21.4	168.1
314	Tinners	20.5	167.8
109	Bookbinders	....	167.7
156	Cigar and tobacco workers	21.7	167.6
243	Barbers	21.1	167.3
181	Shoemakers	21.5	167.2
365	Bakers	21.0	166.9
1,765	Unskilled laborers	20.8	169.4
1,038	Blacksmiths	20.8	169.1
719	Servants, waiters	21.6	168.9
407	Machinists	22.2	171.5
388	Masons	21.3	170.8
154	Draftsmen	22.1	170.4
565	Messengers	20.4	170.4
245	Locksmiths, mechanics	20.6	170.2
348	Carpenters	21.0	170.2
197	Stokers	22.3	170.1
281	Printers, typesetters	21.6	170.1
155	Electricians	....	170.0
1,362	Clerks in stores	21.1	169.9
915	Cabinet makers	20.9	169.8

625 Painters	21.6	169.4
244 Tailors	21.6	165.7

Total, 15,901. Average height, 169.6.

TABLE 6

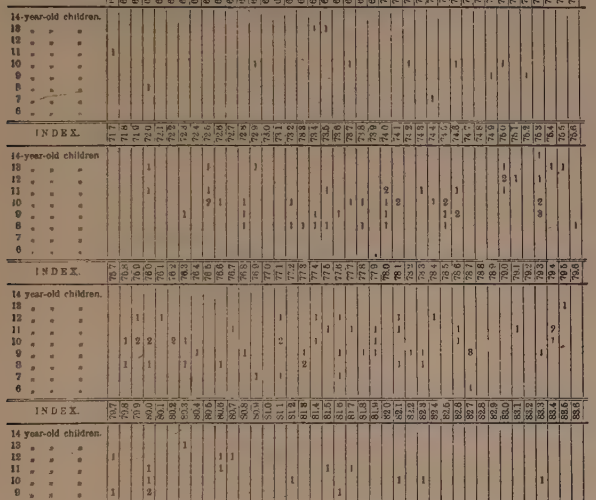
Classification of Swedish Head Indices

Number of individuals classified.	Cases	Percent.
55-59 Extreme dolichocephalic	3	..
60-64 Ultra "	10	..
65-69 Hyper "	477	1
70-74 Dolichocephalic	13,023	29
75-79 Mesocephalic	25,505	56
80-84 Brachycephalic	5,549	12.3
85-89 Hyper "	276	0.6
90-94 Ultra "	31	0.1
95-99 Extreme "	5	..
Total	44,879	100

not so sweepingly dolichocephalic. C. F. Larsen[7] in studying a region of Norway influenced by the immigration of Lapps, distinguished six grades or types, four of which have brachycephalic heads. When it is recalled that Lapps are one of the very broadest headed peoples, the predominance of high indices is not to be wondered at. Blond colouring and a mixture of indices are effects of the amalgamation. (See Table 7.) Danes border between dolichocephalic and brachycephalic. The results of the Danish Anthropological Committee measuring in 1904, the heads of 4,000 adults of both sexes aged 20-65 years, all districts of Denmark, proved 80 degrees to be the average head

[7]Larsen, C. F. Nordlands-befolkningen: Antropologiske undersogelser. (An Anthropological Investigation of the Population of the North). *Videnskabs Selskabets Skrifter I. Mathematisk Naturvidenskabelig Klasse.* No. 2. Christiania, 1905, p. 14.

TABLE 11



index.[8] Ribbing[9] measuring in 1907 the inhabitants of Bornholm found an index of 80 degrees in 15 per

[8]Hansen, S. Om Hovedets Breddeindeks hos Danske. (The Breadth Index of the Head in Danes). *Meddelelser om Danmarks Antropologi*, Copenhagen, 1907-1911, p. 269.

[9]Ribbing, L. Nogle Ord om Bornholms Antropologi. (Anthropology of Bornholm). *Meddelelser om Danmarks Antropologi.* Copenhagen, 1907-1911, p. 195.

cent. of his cases. (See Table 8). The index is slightly lower in two of the three lists supplied by Steensby.[10] Quoting Hansen, "Denmark's present population must be designated as mesocephalous or brachycephalous, (sub-brachycephalous) whether Deniker's or Topinard's terminology be used."[11] Children's head indices are consistently dolichocephalic. See table of distribution (Table 11) for 250 Norwegians, Danes and Swedes, aged 6 to 14 years.[12] Average indices indicate 75.3 for Swedes, 76.5 for Norwegians and 77.8 for Danes. As a summary of the indices, Table 12 illustrates averages stated by various investigators.

TABLE 7

Norwegian Types

Group	Index
Scandinavian - Teutonic Dolicho - Mesocephalian (South District)	77.8
Scandinavian - Teutonic Dolicho - Mesocephalian (North District)	78.2
Brachycephalian 80-82 with traces of Scandinavian Teutonic	81.0
Blond Brachycephalic, peculiar stamp (South District)	84.3
Blond Brachycephalic, peculiar stamp (North District)	84.4
Brachycephalic with traces of mixed Teutonic type	84.0

[10]Steensby, H. P. Forelobige Betragninger over Danmarks Raceantropologi. (Preliminary Observations on the Racial Types in Denmark). *Meddelelser om Danmarks Antropologi,* Copenhagen, 1907-1911, p. 134.

[11]Hansen, S. Om Hovedets Breddeindeks hos Danske. (The Breadth Index of the Head in Danes). *Meddelelser om Danmarks Antropologi,* Copenhagen, 1907-1911, p. 228.

[12]Stevenson, B. L. Comparative Conclusions Regarding the Head Index of Scandinavians in Europe and America. *Internationles Archiv für Ethnographie,* Leyden, Holland. Bd. XXII. Heft vi, 1915.

TABLE 8

Danish Head Index

Head Index	Men	Women
72—72.99	2	0
73—73.99	1	0
74—74.99	4	3
75—75.99	10	3
76—76.99	24	8
77—77.99	22	7
78—78.99	31	10
79—79.99	32	15
80—80.99	42	13
81—81.99	38	11
82—82.99	26	12
83—83.99	22	8
84—84.99	19	6
85—85.99	4	5
86—86.99	5	1
87—87.99	1	0
88—88.99	1	2
90—90.99	0	1
Total	285	105

TABLE 9

Danish Head Index

Head Index	People of Anholt	The Vestjyder	The Nordlynboer
91	0	3	0
90	0	2	0
89	0	4	0
88	2	7	2
87	2	8	6
86	4	5	6
85	8	10	15
84	5	15	17
83	8	15	28
82	9	28	43
81	8	32	54

80	5	29	50
79	10	23	68
78	3	9	45
77	5	10	28
76	3	8	13
75	1	7	9
74	2	2	5
73	0	1	0
Total	75	218	389

TABLE 10

Danish Head Index

Index of Head	Men	Women	
69—70.....	1	0	Dolichocephalic
70—71.....	4	0	Sub-dolichocephalic
71—72.....	2	2	
72—73.....	6	3	
73—74.....	12	9	
74—75.....	41	15	
75—76.....	81	43	Mesocephalic
76—77.....	96	92	
77—78.....	160	119	
78—79.....	199	172	
79—80.....	267	196	
80—81.....	243	249	Sub-brachycephalic
81—82.....	230	271	
82—83.....	190	238	
83—84.....	156	176	
84—85.....	139	131	
85—86.....	64	110	Brachycephalic
86—87.....	52	92	
87—88.....	20	42	
88—89.....	21	27	
89—90.....	6	16	

90—91.....	4	11	Ultra-brachycephalic
91—92.....	1	3	
92—93.....	1	2	
93—94.....	0	0	
94—95.....	0	1	
95—96.....	1	0	
96—97.....	3	0	

Regarding 84 (Table 12), a head index found by Larsen, as an exception, the remaining indices allow the assumption that the Scandinavians are dolichocephalic, which in the case of Danes runs into brachycephaly.

The general conclusion thus reached is that although Danes, Swedes and Norwegians have their individual variations, especially in head index, the Danes being more inclined towards brachycephaly than the two northern (really technically speaking the genuine Scandinavian countries), there is, nevertheless, a racial dolichocephaly tall stature and fair colouring to be observed, as a whole, in this Scandinavian representative of the Teutonic type.

TABLE 12

Indices classified according to various authors

	Retzius	Larsen	Ribb'g	Steensby	Hansen	Stevens'n
Swedes	...75.79					75.3
Norwegians		77.8-84				76.5
Danes.....			80	79	79-80	77.8

England. While Scandinavia's population is thus broadly depicted as tall, fair, and dolichocephalic, and strongly homogeneous, on the whole, England's population is, on the other hand, even more consistently Teutonic in being more uniformly regular in regard to head index, and more noticeably Teutonic in being a

few centimeters taller than the Scandinavian. Racial homogeneity characterizes the British Isles, but the constituent parts, England, Scotland and Ireland form as do Norway, Denmark and Sweden in Scandinavia separate units within the whole. Further, because the British Isles were populated by Jutes, Angles, Saxons and Scandinavians, as we have mentioned above, the traits of these contributory peoples are to be noticed in the population of the British Isles to-day. True as it is that geographical isolation has played its part in producing uniformity of type, nevertheless, there are shire types in England, Scotland, Ireland and Wales which recall old invaders of Great Britain. The bronze age is recalled by Cumberland types; Barley and Cornwall have cases which strikingly resemble men of old Britain, and the blond Anglo-Saxon reappears in Surrey and Sussex men. The Jutish type in Kent and the brunette Welsh in Cardiganshire and Montgomery also recreate old types. Thus it is to be inferred that although thoroughly Teutonic in the greater scope of its homogeneity Britain is nevertheless also pre-Teutonic in some of its racial elements.

The dominant feature of the English population, and by English is here meant the entire population of the British Isles, is colour distinction. Because heads are so regularly uniform and because stature is less variable on the whole than pigmentation, the subject of paramount interest for English anthropometry is colour differentiation. Now although all colours from light to dark are found, it is the position of the scale of pigmentation rather than the presence of differences in colour which is illuminating to racial analysis. From the east to the west, from the Channel to the Atlantic Ocean, England's population progresses from blondness to brunetteness. This is the direction of Teutonic influence. The progressive gradation of colour is accom-

panied by uniformity of head index, 77 or 78[13] for the most part either in the east or the west. Stature is lower in the south and higher in the north; emphasizing detail, stature is lower for Wales and Cornwall, and east Ireland, with areas of short stature in Scotland. By short is never meant actual shortness, however. British indices are always high in comparison to the other races of Europe, for the very distinction between shorter and higher on the island hovers about the index 174. Thus it is seen that to negrescence rather than to stature or head index anthropologic interest in England turns.

Dark eyes with light hair are very uncommon, while dark hair with fair eyes form 25 per cent. of the colour combinations; for pure brunette England's total is only 31 per cent., Scotland's is 22 per cent., Ireland's 23, and Wales 27. In the very dark regions the dark types exceed the blonds by 15 per cent. while in the light regions the blonds only exceed the others by 5. Lincoln is a good example of light Britain, and Herfordshire and Buckingham of dark Britain. Ireland has red haired types besides the blond-haired, blue-eyed. In Wales the black haired individuals predominate; in Pembroke,[14] however, of 4,151 school children there were, discounting the dark haired, more fair haired than children of medium tone. In Scotland the results of an investigation by Gray and Tocher[15] of school children showed a fair race type on the Borders, a dark haired and light eyed type in the west and northwest, and a comparative absence of dark and black hair

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[13]Ripley, W. Z. *The Races of Europe.* New York, 1899. p. 304.

[14]Beddoe, J. *The Anthropological History of Europe.* London, 1912, p. 149.

[15]Ibid., pp. 162-163.

TABLE 13

The Colour of the Hair and Eyes in Scotland

		Hair Colour						Eye Colour		
		Red	Fair	Medium	Dark	Black	Blue	Light	Medium	Light
Scotland	Boys	5.5	24.9	43.3	25.0	1.2	14.7	30.3	32.7	32.3
	Girls	5.1	27.4	40.9	25.4	1.2	14.9	30.3	32.1	22.8
Glasgow	Boys	5.3	21.8	45.7	26.1	1.1	10.7	30.7	34.1	24.5
	Girls	4.8	21.3	44.1	28.6	1.2	11.7	29.9	34.0	24.4
Selected Schools	Boys	5.2	22.2	47.2	24.5	.9	11.0	31.0	37.2	20.8
	Girls	5.2	20.5	49.1	24.2	1.1	10.7	31.4	36.2	21.7

in the Eastern Lowlands. Elderton[16] measuring some 72,857 school children in Scotland found the greatest per cents. to fall in the class distinguished medium. Neither dark nor light, the per cents. for three selected groups ran from 40.9 to 49.1 in favor of the medium class of hair colour, and 32.1 to 37.2 in favor of med-

TABLE 14

Colour of the Hair and Eyes as reported by Duncan

		Hair			
		Fair	Medium	Dark	Total
Eyes	Blue	55	13	22	90
	Medium	22	16	23	61
	Dark	13	4	16	33
	Total	90	33	61	184

TABLE 15

Colour of the Hair and Eyes as reported by Cooper

		Hair			
		Fair	Medium	Dark	Total
Eyes	Blue	17	8	1	26
	Medium	25	21	8	54
	Dark	12	16	12	40
	Total	54	45	21	120

ium coloured eyes. See Table 13. Reports for Aberdeen by Duncan[17] and Cooper[18] and a report quoted

[16]Elderton, E. M. On the Relation of Stature and Weight to Pigmentation. *Biometrika*, VIII, p. 440.

[17]Duncan, J. W. Table of the Colour of the Hair and Eyes of 184 Inhabitants of Aberdeen. *Report of the British Ass'n. for the Adv. of Sci.*, Toronto, 1897, p. 506.

[18]Cooper, J. Table of the Hair and Eyes of 120 Inhabitants of Aberdeen. *Report of the British Ass'n. for the Adv. of Sci.*, Toronto, 1897, p. 507.

TABLE 16

Colour of the Hair and Eyes of 720 School Children attending Public School

Standards		Infant	I	II	III	IV	V	VI	Total
Average Ages		6	7	8	9	10	11	12	
Hair	Dark	42	23	32	30	26	16	14	183
	Medium	74	55	43	40	46	56	18	332
	Fair	63	38	28	28	19	21	8	205
	Total	179	116	98	98	91	93	40	720
Eyes	Dark	51	16	30	20	16	22	10	165
	Medium	67	61	25	32	49	39	19	292
	Fair	61	39	48	46	26	32	11	263
	Total	179	116	103	98	91	93	40	720

TABLE 17

Colour of the Hair and Eyes as reported by Gardiner

		Hair			
		Fair	Medium	Dark	Total
Eyes	Light	20	28	9	57
	Medium	6	18	12	36
	Dark	1	1	9	11
	Total	27	47	30	104

		Hair			
		Fair	Medium	Dark	Total
Eyes	Light	47	29	11	87
	Medium	12	13	24	49
	Dark	0	4	9	13
	Total	59	46	44	149

TABLE 17-a

Colour of the Hair and Eyes as reported by Macleay

		Hair			
		Fair	Medium	Dark	Total
Eyes	Blue	47	60	23	130
	Medium	32	35	15	82
	Dark	25	22	24	71
	Total	104	117	62	283

by the British Association[19] regarding school children in Aberdeen in 1897 show preponderancy of fair and medium colouring. Duncan found 55 cases out of 184 having fair hair and blue eyes, Cooper 25 cases out of 120; in the Aberdeen report which included cases measured in the Island of Lewis, the largest number of indi-

[19]Colour of the Hair and Eyes of 720 School Children Attending Public School. *Report of the British Ass'n for the Adv. of Sci.*, Toronto, 1897, p. 506.

viduals possessed medium hair and eyes. Scotch fairness is emphasized again by the reports of Gardiner and Macleay[20], who quoted the largest returns for fair hair and light eyes. See Tables 17 and 17a.

Coming south into England proper and examining adults in Yorkshire, it is found with Taylor[21] that out of 31 individuals dark hair and dark eyes predominated. But again, the Barley men in England showed a predominance of red and brownish hair and blue or light eyes (see Tables 19 and 21, prepared by Taylor and Haddon for Yorkshire and Herts respectively). Thus it is to be concluded that although throughout the British Isles medium and light tones alternate, a general tendency towards fairness is to be observed in Scotland which in the case of special English shires is thoroughly substantiated. This agrees with the general statement mentioned above that fair and medium coloured cases represent about two-thirds of the population (70 per cent. in rough figures).

Stature according to Taylor varied within the limits 156 cm and 183 (masculine) within which limit 8 cases had heights of 160 and upwards and 9 of 170 and upwards. According to Haddon the heights of the inhabitants of Barley fell as low as 149 and rose as high as 180, with 3 cases at 169 (see Table 19). Quoting the results obtained in the Anthropometric Laboratory of Trinity College[22] in Dublin in 1898, there among 272 physicians, clergymen, students, mer-

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[20]*Report of the British Association for the Advancement of Science*, Toronto, 1897, p. 507.

[21]Taylor, J. J. Anthropometric Notes on the Inhabitants of Cleckheaton, Yorkshire, Ibid., p. 508.

[22]Browne, C. P. Report of the Work Done in the Anthropometric Laboratory of Trinity College, Dublin, from 1891 to 1898. *Proceedings of the Royal Irish Academy*, Third Series 5, pp. 269-293.

TABLE 18

Stature

		Head Index			Stature		
		Mean	Minimum	Maximum	Mean	Minimum	Maximum
					mm	mm	mm
Physicians	(25)	79.0	72.4	84.5	1748	1645	1879
Dentists	(6)	81.3	76.3	83.3	1711	1675	1870
Clergymen	(11)	80.5	76.4	81.7	1731	1673	1798
Teachers	(22)	78.1	72.1	82.4	1737	1637	1824
Scientific men	(14)	79.9	74.6	85.5	1732	1614	1830
Mercantile men	(13)	78.2	75.0	81.5	1715	1593	1831
Students—Honour men	(32)	78.7	73.7	84.9	1745	1653	1841
Honour men—Class B	(55)	79.0	72.6	88.1	1748	1623	1879
Class C	(94)	78.6	73.0	86.6	1749	1610	1885

TABLE 19

Anthropometric Data of Hair, Eyes, Height and Head as reported by Haddon

Number	Males Years	Hair	Eyes	Height	Head Length	Breadth	Index
1	19	Brown	Blue	1,679	184	151	72.8
2	21	Fair	Dark gray	1,745	198	156	78.8
3	56	Fair	Light ,gray	1,804	195	156	80.0
4	49	Fair	Blue	1,656	200	153	76.5
5	66	Black	Blue	1,763	206	150	72.8
6	32	Brown	Light brown	1,745	188	153	81.4
7	45	Dark	Blue	1,564	184	149	81.0
8	40	Brown	Light gray	1,695	209	160	76.5
9	29	Brown	Light brown	1,693	200	158	79.0
10	47	Red	Dark gray	1,588	191	153	80.1
11	51	Red	Blue	1,772	195	154	79.0
12	40	Black	Green	1,702	187	150	80.2
13	43	Dark	Blue	1,630	190	154	81.1
14	49	Black	Blue	1,698	199	156	78.4
15	49	Brown	Blue	1,490	184	154	83.7

cantilemen, etc., there were 2 general averages of 171, 3 of 173 and 4 of 174. See Table 18.

Lastly, examining the head measurment and presenting the results firstly, of individual cases, and secondly, of districts, it will be found that although individual measures vary greatly, the returns for districts are uniformly grouped about 76, 77 and 78 degrees. Individually, indices range from 72 degrees to 85[23] and show a wide variety of measures, which in a larger census entirely disappears. The conformity to the law

TABLE 20

Anthropometric Data of Hair, Eyes, Height and Head as reported by Grünbaum

Number	Hair	Eyes	Height	Cranial Index	Sex
1	Dark	Light brown	1,658	85.8	M
2	Dark	Green	1,630	84.4	M
3	Fair	Blue	1,533	82.2	M
4	Dark	Light gray	1,602	80.0	M
5	Brown	Light gray	1,740	79.8	M
6	Brown	Blue	1,720	79.4	M
7	Brown	Blue	1,640	78.9	M
8	Fair	Dark gray	1,733	78.9	M
9	Brown	Light gray	1,655	78.7	M
10	Red	Light gray	1,595	78.4	M
11	Dark	Dark gray	1,640	77.4	M
12	Brown	Green	.....	77.0	M
13	Fair	Green	1,665	76.9	M
14	Brown	Light brown	1,744	76.9	M
15	Brown	Blue	1,680	77.9	M
16	Dark	Dark gray	1,700	77.7	M
17	Dark	Blue	1,655	75.8	M
18	Brown	Blue	1,607	75.5	M
19	.....	Light gray	1,725	74.8	M
20	Dark	Dark brown	1,515	82.7	F

[23]Haddon, A. C. On the Physical Characters of the Inhabitants of Barley, Herts. *Report of the British Ass'n. for the Adv. of Sci.*, Toronto, 1897, p. 503.

21	Dark	Light gray	1,584	75.4	F
22	Dark	Green	1,740	78.2	M
23	Brown	Blue	1,630	....	M
24	Dark	Green	1,610	....	M

TABLE 21

Anthropometric Data of Hair, Eyes, Height and Head as reported by Taylor

Number	Sex	Age	Hair	Eyes	Height	Index
1		20	F	M	1,728	75.0
2		21	D	D	1,563	79.3
3		23	F	L	1,836	76.1
4		23	D	M	1,684	80.7
5		23	B	D	1,709	76.9
6		24	D	D	1,734	85.2
7		25	B	D	1,713	80.3
8		25	D	D	1,778	76.4
9		25	D	D	1,714	77.2
10		30	D	D	1,721	79.5
11		30	D	D	1,706	80.5
12		35	B	M	1,744	76.2
13		35	D	D	1,650	81.5
14		48	B	M	1,830	77.9
15		50	B	M	1,692	81.4
16		20	B	M	1,679	78.7
17		38	B	M	1,675	78.2
18		23	B	D	1,656	82.1
19		23	D	D	1,648	80.7
20		60	B	M	1,615	85.3
21		20	F	D	1,574	....
22		20	B	M	1,564	81.1
23		21	B	D	1,557	76.8
24		21	B	M	.....	82.6
25		21	B	M	1,656	81.8
26		22	F	M	1,507	79.1
27		25	D	M	1,554	81.2
28		..	D	D	.....	....
29		..	D	D	.....	....
30		..	D	D	.....	....
31		..	D	D	1,588	80.7

TABLE 22

Head Index

Districts	Number	—Maximum— Length Inches	Breadth Inches	Index
Kerry	20	7.81	6.07	77.8
Munster	46	7.71	5.96	77.30
Rest of Ireland	9	7.78	5.91	76
South Wales	66	7.67	5.98	77.96
Cornwall	17	7.72	6.01	77.90
S. Devon	42	7.66	6.00	78.30
N. Devon	56	7.75	6.05	78.13
W. Somerset	71	7.66	5.88	76.8
S. Somerset	32	7.56	5.94	78.57
E. Somerset	94	7.67	5 96	77.7
Gloucester	77	7.70	5.98	77.59
Wiltshire	55	7.76	5.96	76.82
E. Glos. and E. Wilts.	17	....	....	78.3
East of England	30	9.65	6.01	78.6
Yorkshire	11	7.70	6.02	78.6
Cumberland & Lancashire	10	7.74	6.00	77.5
Educated English	40	7.78	6.09	78.25

of British dolichocephaly is borne witness to by the uniformity of the indices quoted by Beddoe for various districts.[24]

Dolichocephaly is thus seen to be a prominent mark of the Englishman; it also characterized the Scandinavian as we have seen. Preeminently, it distinguishes the Teutonic type, which is at the same time fair in colour. Stature also is a mark of the northern breed, and we have seen that stature is almost invariably high for Englishmen and Scandinavians. Stature, head and colouring, all in fact point to the maintenance of distinct type by these two nations belonging to the Teutonic race.

[24]Beddoe, J. *The Races of Britain*, London, 1885, p. 231.

CHAPTER VI

THE ALPINE RACIAL TYPE

RUSSIA. There is no Alpine racial homogeneity and Russia indicates this most plainly as we have seen above. To discuss pure Russian type would be to exclude Finnish and Mongolo-Turkish traits. The Great Russians, White Russians and Little Russians with the addition of the non-Aryan Russians of the east and south must all be taken as representative of anthropologic Russia. In all this conglomeration of variously formed original types, the broadheaded, mediumly tall and mediumly tinted type should prevail, but that it does only when generalizing must be admitted in face of the conflicting results obtained from the study of individual cases. Studied by districts, governments, or regions Russian heads, stature and colouring vary, but generalizing and quoting results for all Russia, the following statements by Ivanovoski[1] may be taken as representative. Russians are brachycephalic, for 66 per cent. of the population in the west is brachycephalic, 71 per cent. in the east, 63 in the north, and 68 in the south. See Table 23. Russians are both tall and short—not so tall as the English and Scandinavians nor so short as the Italians. Quoting the figures of Ivanovoski it is found that western Russia has its greatest percentages in the 165 to 170 cm division, the east and north in the classification below 160, and the south agrees with the west in class-

[1]Ivanovski, A. A. *About the Anthropological Formation of the Population of Russia.* Moscow, 1904. (In Russian).

TABLE 23

Russian Head Index

Division	Dolicho-cephalic %	Sub-dolichocephalic %	Mesocephalic %	Sub-brachycephalic %	Brachycephalic %
Western Russia	5	10	19	31	35
	15			66	
Eastern Russia	5	9	15	30	41
	14			71	
Northern Russia	6	11	20	30	33
	17			63	
Southern Russia	5	10	17	31	37
	15			68	

ifying in the 165 to 170 division. (See Table 24). Generalizing about the colour of the hair it may be said that medium tone prevails, for reckoning three shades, light, mixed, and dark for all Russia, the largest percentages in each of the four divisions of Russia, north, east, south and west, fall in the column denoted mixed. See Table 25. Generalizing once more, it can be said that while head index stands rather constantly at 82, brunetteness increases regularly from north to south; the Baltic Sea is the center of the circle of blondness which extends southwards; and stature may be described as progressively increasing in a circle that swings from the north to the east, to the south, and the west.

Particularizing, stature and colouring show the most interesting features. For European Russia, stature oscilates from heights that are quite small, as for instance in Kasan and Ufa, to those that are quite large as 165-167 in the Baltic Sea provinces[2] while the gov-

TABLE 24

Stature

	Height			
Divisions	x-1600 mm	1601-1650	1651-1700	1700-x
Western Russia.....	19%	25%	30%	26%
Eastern Russia.....	32%	27%	23%	18%
Northern Russia....	26%	25%	25%	24%
Southern Russia.....	24%	28%	29%	19%

ernments of Suwalki, Tula and Jaroslav furnish heights which are medium. The White Russians who are found to be purest in Tver and Pskov are supposed to average about 165. A great deal of red hair is recorded as found in European Russia, yet among White and

[2]Ivanovski, A. A. *About the Anthropological Formation of the Population of Russia.* Moscow, 1904, pp. 165-167.

Great Russians there is an almost equal proportion (52 and 51 per cent.) of dark to light, while among the Little and Great Russians the two shades are distributed equally, only the White Russians have a greater proportion of light eyes. The colouring of hair and eyes has been generally estimated to be mixed; Ivanovoski considers that 35 to 50 per cent. of the European Russians possess medium colouring.

But it is necessary to consider the other racial strains which are present in the Russian population, that is, the Asiatic elements evident in Finnish and Mongoloid traits which have been mentioned above. Lowered stature is an instance of Asiatic heritage, for example, in the case of Perm; there the recruits are said to have an index of 164[3] while the real Perm inhabitants have an index of 161. Turko-Mongoloid traits are evident in Tartars (Tatars) of some governments which distinctly belong to European Russia, as in Kasan, Samara, Riazan and Tambov. Stature in Kasan and Samara runs 161, 162, 163, 168 for various provinces where the Tschouvaches are found, while the Bashkirs who in

TABLE 25

Colour

	Colour Types		
Divisions	Light	Mixed	Dark
Western Russia.....	33%	43%	24%
Eastern Russia.....	14%	38%	48%
Northern Russia	26%	48%	26%
Southern Russia.....	21%	35%	44%

Orenburg measured 166, 165, 160, in Samara measured 161 the same as the Tschouvaches.[4] Whether in Rus-

[3]Maliew.

[4]Deniker, J. La Taille en Europe. La Taille des populations Turco-tartars et des Caucasiens. *Soc. d'anthrop. de Paris. Bull. et Mem.*, ser. 5, v. 10, p. 66.

TABLE 26

Stature

Limits of variation	Number	Percentage
1500—1520	3	2
1521—1540	1	0.5
1541—1560	4	2
1561—1580	6	4
1581—1600	6	4
1601—1620	18	12
1621—1640	17	12
1641—1660	20	13
1661—1680	14	9.5
1681—1700	17	12
1701—1720	22	15
1721—1740	12	8
1741—1760	6	4
1761—1780	2	1
1781—1800	0	0
1821—1840	1	0.5
1841—1860	0	0
1861—1880	1	0.5
Total	150	100

sia proper, that is, in Riazan, Tambov, or the Crimea, the Tartars measure about 162, 163 and 164, while Cossacks of Central Asia, Siberia and the Caucasus run lower.[5] The Kirghiez, Turks and Sarts, on the other hand, have comparatively high indices. Again, in the Caucasus the Tscherkess, the people of Azerbaijan, and the Grusians have stature of 167, 168 and 164 respectively. To illustrate the stature it is well to take the people of Azerbaijan, which although it is Persian territory nevertheless is not Turkish. Deniker says, "Les Aderbeijani qui ne sont Trucs que par leur langue,

[5]Anutchin, D. N. Ergebnisse der anthropologischen Erforshung Russlands. *Globus,* v. 80, p. 249.

offrent un contraste frappant avec les vrais Turcs pour la taille comme pour l'indice cephalique." Quoting a table from the investigation of Kurdoff[6] the mode appears as 171-172. Table 26. The Grusians who are not far removed from Azerbaijan are, however, shorter; their index falls about 164. This index corresponds to the mode for hair colour among the Grusians. See the table of results (Table 27) presented by Javakoff;[7] there were 57 black haired and 46 hazel eyed among 100 cases. Classified particularly according to the col-

TABLE 27

Colour of the Hair and Eyes

Colour of Hair	Number of Cases	Height
Black	57	164.5
Hazel	33	163.4
Light	10	166.2
Colour of Eyes		
Hazel	46	163.8
Blue	5	159.0
Green	20	164.4
Light	7	168.5
Gray	22	165.3

TABLE 28

Colour of the Hair

	Dark	Light	Tawny	Gray	Total
No.	97	36	1	16	150
%	64.5	24	0.5	11	100

our of the hair and eyes, Russia's population often seems to possess the combination of hazel eyes and dark hair.

[6]Kurdoff, K. M. The Tartars of the Trans-Caucasus. *Russki Antropologitschesky Zhurnal,* No. 4, 1912, p. 9.

[7]Javakoff, A. To the Anthropology of the Grusians in the Caucasus. *Russki Antropologitschesky Zhurnal,* Nos. 1 and 2, 1913, pp. 99-162.

The colour of the hair in Azerbaijan is dark, as 64.5 per cent. of the 150 cases measured by Kurdoff shows. (See Table 28). This is the Turkish element. Finnish colouring, on the other hand, is brought out in the tables presented by Cevastianoff[8] concerning the Perm group; of 258 individuals 143 had medium hair, 53 flaxen and only 29 dark. See (Table 29). Or quoting other figures supplied by the same author, the identical result is obtained. In Table 30 the greatest per cent., 18, of individuals is seen to have medium hair and blue eyes. Disregarding special districts and judging all Russia on the basis of Ivanovoski's classification of types into light (real blonds and near blonds), mixed (neither distinctly light nor dark), and dark almost brunette and real brunette, the following statement can be made: while southeastern Russia tends towards darkish type, the northwestern runs to medium and even significantly towards light type in the west. (See Table 31).

Lastly, a consideration of head index in all Russia leads to final conclusions about Russian anthropometric type. In all European Russia there is 4 1-2 times more brachycephaly than dolichocephaly. The Caucasus and Siberia are like eastern Russia. A table of indices (Table 33) of a Perm group in eastern Russia shows a high number of brachycephals, 54, in a hundred cases.[9] But this brachycephaly is offset by the dolichocephaly of the Turkish group in Azerbaijan,[10] which possesses greater dolichocephaly than brachycephaly.

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[8]Cevastianoff, E. P. To the Anthropology of the Zerans. *Russki Anthropologitschesky Zhurnal*, No. 1, 1912, pp. 58-68.

[9]Ibid., p. 58.

[10]Kurdoff, K. M. The Tartars of the Trans-Caucasus. *Russki Antro. Zhurnal*, No. 4, 1912, p. 12.

TABLE 29

Colour of the Eyes and Hair

	Blond		Flaxen		Medium		Dark		Black		Red		Total		Total
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	
Blue eyes.....	7	6	3	12	13	9	..	1	..	..	2	2	25	30	55
Hazel eyes	..	1	2	10	31	42	8	17	..	1	..	1	41	72	113
Yellow eyes	1	2	8	2	15	5	1	..	..	..	..	..	25	9	34
Blue eyes	1	1	4	4	2	2	2	..	..	..	3	1	12	8	20
Blue green	1	3	..	8	1	21	..	..	..	..	..	..	2	32	34
Green	..	..	..	2	2	..	..	..	..	..	..	..	2	..	2
Total	10	13	17	36	64	79	11	18	..	1	5	4	107	151	
	23		53		143		29		1		9		258		

TABLE 30

Colour of the Hair and Eyes

Classification	Number	Per Cent.
Blond with blue eyes	10	13
Blond with hazel eyes	2	2
Blond with yellowish blue eyes	4	5
Light with blue eyes	9	12
Light with hazel eyes	3	4
Light with yellowish blue eyes	8	10
Medium with blue eyes	14	18
Medium with hazel eyes	7	9
Medium with yellowish blue eyes	12	16
Dark with hazel eyes	4	5
Red with blue eyes	1	1
Red with hazel eyes	1	1
Total	75	95

TABLE 31

Colour

	Light %	Mixed %	Dark %
Western Russia	33	43	24
Oriental Russia	14	38	48
Northern European Russia	26	48	26
Southern European Russia	21	35	44

TABLE 32

Head Index

Types	Number	Per Cent.
Dolichocephalic	23	15
Subdolichocephalic	43	29
Mesocephalic	52	35
Subbrachycephalic	24	16
Brachycephalic	8	5

(Table 32). But in all Russia there is 4 1-2 times more brachycephaly than dolichocephaly as has been

said. Ivanovoski gives 14 per cent. dolichocephals, 17 per cent. mesocephals, and 68 per cent. brachycephals.

The conclusion made on the basis of the agreement of the four quarters in giving brachycephaly is that Slavic type is fast brachycephalic. That it is medium sized, has been gathered from the results quoted, which have pointed to 169 as a frequent stature index. Lastly, although Asiatic Russia is occasionally dark, European Russia can be regarded as medium with a tendency to sandy colouring in the Baltic region.

France. Brachycephaly and racial autochthony in the midst of various racial elements characterize Russia and France. Aside from these likenesses the French type differs slightly from the Russian in being shorter on the average, and although both are medium in colour, the medium of the French is chestnut rather than the sandy or the dull coloured shade of the Russian. In France more than in any of the countries instanced except perhaps Rus-

TABLE 33

Head Index

Types	Number	Per Cent.
Dolichocephalic	0	..
Subdolichocephalic	1	1
Mesocephalic	11	11
Subbrachycephalic	34	34
Brachycephalic	54	54

sia, heterogeneity prevails. Broca says, "Partout il y a des hommes grands et des hommes petits, partout il y a des blonds et des bruns, des tête longes et des têtes rondes, des yeux noirs, bleus ou gris, des visages celtiques, germaniques et même pelasgiques."[11] The

[11]Broca, P. *Memoires d'anthropologie.* Paris, 1871, vol. I., p. 331.

two original components of the French people, which we have mentioned above, the original Celts and the Teutons, or Burgundians and Franks, make a racial hodge-podge in France to-day. Taking the country as a whole we can distinguish two stature types, two colour types, and dolichocephaly as well as brachycephaly. The general area for lower head indices is the region of Flanders, down through Limoges to the Mediterranean belt of coast line. The three undisturbed spots of Savoie, Auvergne and Brittany differ from this main track. Stature is higher in the north than in the south, a fact which tallies with the old Burgundian occupation of the northern provinces, Moselle and other Rhine provinces. Colouring increases in degree from the north to the south. The dwellers on the Mediterranean side of France are the darkest of all. Basques are of mixed colour. In stature they are about the average French height 165: Deniker[12] quotes 165.8. They are both dolichocephalic and brachycephalic, although Collignon emphasizes mesocephaly.

Reviewing the stature heights of Gers a province in the near vicinity of the Basque *arrondisements* of Mauleon and Bayonne on the slopes of the Pyrenees, a great uniformity of index is to be observed which follows very closely the medium for all French heights. See Table 34 for results quoted by Collignon.[13] The average of 163.9 agrees almost absolutely with the 164 of all France. Directly north of Gers, but in Vienne[14] in central France the stature shows a similar convergence to the medium since for the five *arrondisements* of Civ-

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[12]Deniker, J. *The Races of Man.* London, 1900, p. 580.
[13]Collignon, R. La Taille dans le Department du Gers. *Revue mems. de l'Ecole d'Anthr.* VII, p. 339.
[14]Atgier, E. A. Anthropologie de la Vienne aux temps actuels. *Soc. d'anthrop. de Paris.* Bulletins, ser. 4, vol. 9, pp. 617-637.

ray, Londun, Châtellerault, Montmorillon and Poitiers, there is an agreement among the *arrondisements* in giving the largest number of returns in the stature division 160 to 164 cm. For all Vienne, some 1,800 cases, the greatest number of heights were included between the limits 160 and 170, but those cases between 160 and 165 were 583 to the 543 of the cases in the upper division.

Deniker gives 164.6 as the index for all France, Topinard 165. Broca's studies of conscripts of 20 to 21 years, gives an average of 164.2 or 164.9. Topinard[15] points to Doubs as the center for tall heights, and Haute-Vienne for the shortest. In the neighbouring district of Vienne, as has just been shown, the stat-

TABLE 34

Stature

Canton	Average Stature
Auch—North	1,646
Auch—South	1,653
Gimont	1,643
Lombez	1,627
Cologne	1,661
L'Isle—Jourdain	1,644
Samatan	1,636
Mirande	1,645
Aignan	1,634
Marciac	1,636
Masseube	1,631
Mielan	1,640
Montesquion	1,638
Plaisance	1,643
Riscle	1,643
Mir a doux	1,659
Saint-clar	1,667
Jegun	1,623
Saramon	1,626
Vic-Fezensac	1,636

[15]Topinard, P. *Anthropology.* London, 1890, p. 324.

Condon	1,655
Cazaubon	1,627
Eauze	1,616
Montreal	1,634
Nogare	1,627
Valence	1,637
Lecteure	1,654
Fleurance	1,651
Mauvezin	1,642
Department of Gers	1,639.6

TABLE 35

Stature of 1867 Individuals in the Department of Vienne

	Short		Medium		Tall		
Cantons	Less than 154	154 to 159	160 to 164	164 to 170	170 to 177	180 to X	Total
Civray	0	8	18	18	8	0	52
Availles	0	7	10	9	8	0	34
Charroux	0	6	14	10	6	0	36
Couhé	2	7	15	20	30	1	75
Gencay	0	12	29	19	12	0	72
Total for arrondisement of Civràу	2	40	86	76	64	1	
		42		162		65	269
Londun	1	4	14	22	9	0	50
Montcontour	2	8	16	32	10	0	59
Monts-sur-Guesnes	0	10	21	9	6	0	46
Trois-Moutiers	0	8	19	9	11	0	44
Londun	3	30	67	63	36	0	
		33		130		36	199
Poitiers—north	2	4	16	19	26	2	69
Poitiers—south	2	4	20	15	14	2	57
Lusignan	1	6	39	24	11	0	81
Mirebeau	4	19	21	17	5	0	66
Neuville	0	10	29	21	13	0	73
Saint-Georges	1	5	15	12	14	1	48
Saint-Julien l'Ars	0	7	12	21	4	0	44
La Villediter	1	3	12	20	13	1	50

Vivonne	0	7	6	11	6	0	30
Vouille	0	6	17	27	14	0	64
Poitiers	11	71	187	187	120	6	
		82		374		126	582
Châtellerault	2	21	39	26	38	5	131
Dangé	4	12	8	11	10	0	45
Leigné-sur-Usseau .	3	5	15	14	5	0	42
Lencloitre	3	15	25	12	7	0	62
Pleumartin	2	12	18	21	12	0	65
Vouneiul-sur-Vienne	0	10	8	11	13	0	42
Châtellerault	14	75	113	95	85	5	
		89		208		90	387
Montmorillon	2	9	22	24	22	1	80
Chauvigny	4	14	18	10	13	0	59
L'Isle Jourdain	3	13	23	32	19	0	90
Lussac	1	10	33	19	18	0	81
Saint-Savin	1	9	17	18	11	0	56
La Tremoiulle	0	9	17	19	18	1	64
Montmorillon	11	64	130	122	101	2	
		75		252		103	430
Total for Department of Vienne...	41	280	583	543	406	14	
		321		1,126		420	1,867
Per Cent.....		17.19		60.31		22.49	

ure runs very near the average, so that on the whole a general statement can be made that taking the tall and the short, 165 can very well express the medium.

In quoting colouring, four principal shades are usually distinguished among French inhabitants, black, brown, chestnut and fair, *couleur foncée, coulour intermediare, couleur claire* which is chestnut or *châtain*, and *blond*. Garnier-Mouronval[16] recording the colour

[16]Garnier-Mouronval, M. Recherches anthropometriques sur les normands. *L'Anthropologie*, XXIV, p. 27.

of hair and eyes of 100 conscripts in Normandy found dark chestnut or brown hair and dark eyes to predominate, 31 and 31 cases respectively out of 100 each for hair and eyes. (See Table 36). Topinard does not agree to a general statement about hair colour in entire France, he distinguishes two types which he claims may have originated from primitive stocks, the Celts and the Teutons. Thus in what he calls the Kymric region, that is, northeast France, he considers that the fair haired type predominates to the exclusion of the brown (chestnut haired), while in the Celtic region chestnut hair outstrips fair. The per cents. are quoted at 55 and 78.[17] (See Table 37). Distinction between these two regions is not so marked in regard to eyes, for while in the Kymric Departments blue eyes outrun brown by a difference of 4.2, the per cents.

TABLE 36

Colour of the Eyes and Hair

Colour of Eyes	Number
Dark	31
Medium	15
Light	25
Blue	29
Total	100

Colour of Hair	Number
Dark	25
Medium	31
Light	21
Blond	23
Total	100

[17]Topinard, P. *Anthropology*. London, 1878, p. 349.

TABLE 37

Colour of Hair

Classification	Fair	Chestnut
Kymric Departments ..... (Nord, Jura, Bas-Rhin, Moselle, Haut-Rhin, Meurthe)	55	44.9
Celtic Departments ..... (Corrèze, Haute Loire, Aveyron, Indre, Cartal, Ardèche, Dordogne)	21.8	78.0

for both shades equal each other in the Celtic Departments. Table 38. Altogether, very black haired individuals are not to be found except among the Basques. Bretons are brown haired, for among 368 cases measured, 57 per cent. were found to be brown, in comparison with 22.7 per cent. chestnut or medium, and 20 per cent. fair or sandy.

Among the Bretons high brachycephaly is to be met with, 84.9 in the interior and 83 on the coast, as quoted by Topinard. Deniker places the index at 82.7, and Collignon at 83.72. The Basque index, 83.45 (Collignon) is very similar to this, while the district of Gers for which we have quoted the stature results, the index goes higher, that is, to 85.71. In the districts of Haute-Vienne the index is as low as 79, but again in Normandy it rises—Seine-Inferieure 81.1, Eure 91.34, Calvados 81.62 and Orne 83.37. While a table of the indices of all France prepared by Collignon gives a general idea of the distribution of indices, (see Table 29), a presentation of indices by regions gives a better idea of French head measurements, for instance, those quoted by Deniker for the Department du Nord, 80.4, for Limousin and Perigord 80.7 (Collignon a bit lower), and the Provençals 81.7. Head index as a rule follows no stature distinctions, with possible exceptions, for instance, in the Department of Doubs, quoted

TABLE 38

Colour of the Eyes

	Blue	Brown
	%	%
Kymric Departments	56	41.8
Celtic Departments	50	50.0

TABLE 39

Head Index

Number Cases	Departments of France	Index
23	Ain	86.72
62	Aisne	80.88
33	Allier	83.33
32	Basses-Alpes	83.67
5	Hautes-Alpes	84.37
53	Alpes-Maritimes	82.85
91	Ardennes	83.24
23	Ardèche	85.24
23	Ariege	82.89
20	Eure-et-Loir	82.83
30	Gard	83.12
30	Haute-Garonne	83.43
24	Gers	85.71
62	Gironde	82.60
21	Herault	82.50
329	Ille-et-Vilainé	84.02
19	Indre	82.66
29	Indre-et-Loire	81.40
20	Isère	85.32
24	Jura	88.20
20	Landes	84.50
43	Loire	84.04
27	Haute-Loire	87.52
160	Loire-Inferieure	83.77
22	Loire-et-Cher	83.30
41	Loiret	83.08
20	Lot	85.59
21	Lot-et-Garenne	86.66
26	Bas-Rhin	83.64

26	Haut-Rhin	83.80
23	Aube	83.07
30	Aude	81.05
332	Aveyron	85.50
221	Bonchés-du-Rhône	81.43
81	Cantal	87.08
191	Calvados	81.62
21	Charente	80.93
29	Charente-Inf.	82.06
47	Cher	81.77
62	Maine-et-Loire	83.16
919	Manche	83.10
25	Marne	84.11
20	Haute-Marne	86.83
100	Mayenne	84.10
50	Meurthe	85.64
62	Meuse	85.00
173	Norbihan	82.62
41	Moselle	83.97
41	Nièvre	83.14
171	Nord	80.38
52	Oise	82.60
120	Orne	83.37
183	Pas-de-Calais	80.36
55	Puy-de-Dôme	85.53
62	Basses-Pyrenees	83.45
21	Hautes-Pyrenees	83.67
35	Pyrenees-Orientales	78.24
44	Vosges	86.68
31	Yonne	82.57
26	Cote-d'Or	84.01
2023	Cotes-du-Nord	83.72
24	Corrèze	83.98
20	Creuse	82.83
53	Deux-Sèvres	82.83
21	Dordogne	79.17
22	Doubs	86.05
21	Drome	84.89
109	Eure	81.34
51	Rhone	86.01
22	Haute-Saône	87.37
41	Saône-et-Loire	87.11
44	Sarthe	83.84
191	Savoie	87.39

25	Haute-Savoie	86.25
100	Seine	81.57
283	Seine-Inferieure	81.10
106	Seine-et-Marne	82.86
161	Seine-et-Oise	81.57
51	Somme	81.88
22	Tarn	83.72
18	Tarn-et-Garonne	85.80
54	Var	82.77
47	Vaucluse	81.53
32	Vendée	84.47
30	Vienne	82.94
20	Haute-Vienne	79.70
14	Lozère	87.87
237	Corse	76.93

above by Topinard as possessing 156 tall statured men to 1,000 men, the index is 86.05, while Haute-Vienne possessing the proportion of 31.6 to 1,000 men has an index of 79.7. Prevalence of similarity of index for varying heights is well brought out in a table prepared by Manouvrier in which although the height varies from 146 to 180 the index never goes beyond 81.1 to 83.1. (See Table 40).

We are thus left with the general conclusion that the French are brachycephalic 80-81, that they are mediumly tall 165 cm, and that on the whole they are inclined to be chestnut coloured, darkish of eyes and brown of hair. Reiterating the conclusion deduced concerning Russian type being brachycephalic, medium of height and of colouring, a final statement is evolved that Alpine type is thus, in spite of all seeming discrepancy in composition, quite uniformly regular in being brachycephalic, and medium of stature and of colouring.

TABLE 40

Head Index

Number of Individuals	Height	Cephalic Index
21	146 cm	83.1
128	151	82.5
522	156	82.2
1,045	161	82.2
1,177	165.4	82.3
800	170	82.4
313	175	82.1
65	180	81.1
4,071		

CHAPTER VII

THE MEDITERRANEAN RACIAL TYPE

IT was remarked above that Italy, being formed of the old Italian tribes of Umbrians, Oscans, Vituli and Latins, had somewhat of a mixed population. Further, the Ostrogothic, the Lombard and Frankish invasions changed the type in Lombardy, Umbria and Piedmont. Now, while it is not possible to draw anthropologic conclusions about Roman anthropometric type, it is quite possible to outline the physical contours of the short, dark, dolichocephalic Mediterranean of to-day.

Italy. Three prominent facts stand out in Italian anthropometry:—stature decreases progressively from north to south, dolichocephaly increases from north to south, and there is an increase of pigmentation or an advance in brunetteness in the same direction. Examing Italy piecemeal and proceeding from the southernmost part, Sardinia is seen to be most African-like of all European populations. There blondness is so rare that light traits occur in less than 10 per cent. of the total population and blond types less than 3 per cent.; further, an extremely short stature (156) is to be met with as well as a head index of 73. Sicily, being more subject to a greater impress of changing population, is not so distinctive in type. Tuscany tends towards the northern type, but like her prototype, the Etruscan, is problematic, for her long headed district differs from the nearby broad headed districts of Marshes and Umbria. In Lucca the differences between north Italian (that is, broad headed taller and

fairer type) and south Italian (that is, long headed, short and very dark) type is brought out. The index 74-78 (see Table 41) is in marked contrast to the pronouncedly north Italian Piedmontese 83-89.[1] Passing over Liguria which is southern in type, we reach the northern-most provinces of Lombardy and Piedmont where indices are as high as 83 and 84 and stature runs to 162 and 165. Thus it is seen that the anthropometric character of Italy's population presents a rather regularly culminating geographical order of colour, height and head index, which *in toto* gives the general Mediterranean figure with its dolichocephalic head, its short stature and dark colouring.

But examining stature, head and colouring in more detail and presenting the results tabularly as well as

TABLE 41

Head Index

Index	Number
70—79.9	10
71—71.9	3
72—72.9	8
73—73.9	9
74—74.9	12
75—75.9	10
76—76.9	13
77—77.9	14
78—78.9	10
79—79.9	9
80—80.9	7
81—81.9	6
82—82.9	4
83—83.9	2
84—84.9	2
85—85.9	1
Total	120

[1]Pittaluga, R. Studio antropometrico sulle donne della Lucchesia. *Societa romana*, vol. 15, pp. 15-34.

in a descriptive way the following results are obtained. Livi[2] who measured 256,166 cases gives a height of 164.7 cm as the general Italian average. (See Table 42). The greatest number of recruits measured from 1874-1878 is reported by de Rossi[3] to have measured 162 cm. Of 1,776,250 cases 110,706 measured 162 cm and 110,169 measured 165. (See Table 43). Interesting as a presentation of Italy's varying north and south types are the results (Table 44) quoted by Pittaluga[4] for the inhabitants of Lucca, a place which although situated in the north of Italy shows a southern stature (157). Judging stature more generally the table (Table 46) quoted below gives a good idea of Italin height. The division into four groups, first heights less than 160, second 160 to 165, third 165 to 170, and fourth 170 and above, shows the greatest bulk of 299,355 cases measured in the 160 to 165 class, with 87,394 cases in the 165 to 170 class, and about as many below 160 as above 170.

According to Boas[5], who measured fifteen cities in Campania, Abruzzo, Basilicata, etc., the head indices ranged from 77.6 to 81.9. (See Table 45). Although these indices are slightly lower than those obtained by Livi for the same places, they agree on the whole with the results found by that author. Indices which are exceptionally low are to be found, however, for instance, in Apulia at Leuca where there is an index of 73.

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[2]Livi, R. La Condizione Sociale e lo Sviluppo Fisico. *Revista italiana di soc. Torino.* 1905. Anno 9, p. 474.

[3]De Rossi, G. La Statura degli Italiani. *Archivio per l'antropologia e la etnologia,* vol. 33, pp. 17-64.

[4]Pittaluga, R. Studio antropometrico sulle donne della Lucchesia. *Societa romana,* vol. 15, pp. 15-34.

[5]Boas, F. and H. The Head-Form of the Italians as Influenced by Heredity and Environment. *American Anthropologist,* vol. XV, No. 2, p. 177.

TABLE 42

Stature

Regions	Total number of observations	General Height	Among Students	Among Peasants
Piedmonte	29,558	165.0	166.9	165.1
Liguria	7,016	165.6	167.3	165.5
Lombardia	32,156	165.4	167.6	165.3
Veneto	25,324	166.6	168.2	166.5
Emilia	21,722	165.4	167.7	165.1
Tescara	21,148	165.7	167.6	165.6
Marche	9,235	163.9	166.6	163.5
Umbria	5,214	164.4	167.1	163.7
Lazio	6,552	164.4	167.1	163.7
Abruzzi e Molise	12,334	163.4	166.7	163.0
Campania	24,365	163.7	165.7	163.1
Puglie	13,962	163.7	166.6	163.1
Basilicata	4,894	162.7	165.9	162.2
Calabria	10,346	163.4	166.1	162.8
Sicilia	27,009	163.7	166.6	162.9
Sardegna	5,301	162.1	164.1	161.1
Italy	25,166	164.7	166.9	164.3

TABLE 43

Stature

Height	Number	Height	Number	Height	Number
125	266	146	3,305	168	82,847
125	163	147	4,092	169	69,733
126	49	148	5,078	170	62,666
127	48	149	6,386	171	49,932
128	69	150	9,650	172	42,405
129	85	151	11,761	173	33,090
130	247	152	15,219	174	25,904
131	140	153	20,033	175	21,484
132	175	154	37,058	176	15,819
133	235	155	56,317	177	11,878
134	277	156	65,283	178	8,836
135	417	157	73,999	179	6,347
136	418	158	82,607	180	5,223
137	561	159	88,372	181	3,124

138	634	160	102,048	182	2,254
139	717	161	104,495	183	1,651
140	1,171	162	110,706	184	1,082
141	1,168	163	109,736	185	606
142	1,534	164	106,898	186	422
143	1,659	165	110,169	187	354
144	2,029	166	99,259	188	233
145	2,796	167	92,918	189	145
				190	68

Total 1,776,350

TABLE 44

Stature

Stature cm	Number
145	1
146	1
147	1
148	1
149	5
150	5
151	3
152	5
153	4
154	8
155	3
156	4
157	15
158	8
159	6
160	9
161	3
162	5
163	1
164	5
165	4
166	7
167	4
168	0
169	2
170	2

171	0
172	1
Total	113

TABLE 45

Head Index

Place	Livi	Boas
Caserta	81.8	80.3
Chieti	83.3	81.9
Campobasso	81.6	82.0
Avellino	81.4	80.6
Napoli	82.6	80.9
Salerno	82.7	81.0
Bari	80.7	79.6
Potenza	80.8	81.3
Cosenza	77.9	77.6
Messina	78.8	77.8
Palermo	79.1	77.6
Trapani	80.0	78.7
Caltanisetta	79.4	78.3
Girgenti	80.1	78.8
Catania	79.7	77.8

Hair and eye colouring in the members of the Mediterranean race is not distinguished by any remarkable features. Dark colouring is the rule, but light hair and eyes are found, however. Surprisingly large figures for gray eyes, for instance, are given in the table (Table 46) quoted below[6]—61,638 gray eyes against 26,164 black eyes. Hazel eyes predominate as can be seen from the large number 180,321 in 299,018 total cases. Hair is not black so often as would be supposed. In contradistinction to the 179,876 cases of chestnut coloured hair there are only 92,897 of black. On the whole, Italian colouring is chestnut and hazel, or according to the more general classification, Italian hair is medium in tone, and Italian eyes are dark.

[6] *Saggio dei Risultati anthropometrici.* Rome, 1894, pp. 46-47.

TABLE 46

Stature and the Colour of the Hair and Eyes

Compartments	Stature Number of cases	Stature Less than 160	160 to 165	165 to 170	170 and above
Piedmonte	33,541	5,151	11,444	10,481	6,465
Liguria	8,104	1,057	2,560	2,659	1,828
Lombardia	36,904	5,209	1,016	11,653	8,026
Veneto	28,509	2,694	8,116	9,522	8,177
Emilia	24,616	3,478	8,020	7,882	5,236
Toscana	23,738	2,969	7,500	7,672	5,597
Marche	10,747	2,248	4,018	2,988	1,493
Umbria	6,301	1,109	2,437	1,825	930
Lazio	8,035	1,482	3,004	2,298	1,251
Abbruzzio Molise	14,524	3,624	5,673	3,625	1,602
Campania	28,967	6,650	11,097	7,619	3,601
Puglie	16,546	3,842	6,267	4,226	2,011
Basilicata	5,976	1,690	2,374	1,424	488
Calabria	13,336	3,341	5,224	3,336	1,435
Sicilia	32,824	7,804	12,110	8,651	4,259
Sardegna	6,687	2,196	2,776	1,333	382
Total	299,355	54,544	104,636	87,394	52,781

Compartments	Colour of the Hair Cases	Red	Blond	Chestnut	Black	Colour of the Eyes Cases	Blue	Gray	Chestnut	Black
Piedmonte ..	33,522	248	4,164	21,412	7,698	33,468	4,539	8,829	18,070	2,030
Liguria	8,091	42	853	5,175	2,021	8,096	849	1,560	5,017	670
Lombardia ..	36,860	256	3,733	23,237	9,634	36,867	4,922	8,780	20,666	2,499
Veneto	28,472	219	3,577	17,577	7,099	28,470	4,483	7,313	14,954	1,720
Emilia	24,583	130	1,762	14,977	7,714	24,582	2,306	5,350	14,989	1,937
Toscana	23,721	175	2,192	14,999	6,355	23,720	2,472	4,995	14,606	1,647
Marche	10,739	65	801	6,733	3,140	10,735	1,083	2,279	6,693	680
Umbria	6,293	29	567	3,801	1,896	6,290	737	1,327	3,735	491
Lazio	8,025	61	512	4,886	2,566	8,027	664	1,439	5,199	725
Abbruzzi Molise	14,515	78	951	9,086	4,394	14,504	1,246	2,900	9,277	1,081
Campania ...	28,926	144	1,964	16,672	10,146	28,951	2,431	4,983	18,301	3,236
Puglie	16,537	67	937	9,460	6,073	16,539	1,253	3,117	10,504	1,665
Basilicata ...	5,971	32	288	3,551	2,100	5,964	399	980	4,109	476
Calabria	13,320	29	503	6,938	5,850	13,309	729	1,870	8,820	1,890
Sicilia	32,806	129	1,648	18,471	1,255	32,811	2,513	5,254	20,942	4,102
Sardegna	6,685	16	115	2,901	3,653	6,685	269	662	4,439	6,685
Total ...	299,066	1,720	24,573	179,876	92,897	299,018	30,895	61,638	180,321	26,164

Italian type is thus dark, mediumly tall and dolichocephalic. Franco-Russian type is medium in stature and colour, and brachycephalic: Scandinavian and English types are light, tall and dolichocephalic. There

TABLE 47

Head, Stature and Colouring

Nationalties	Head	
Scandinavians	Dolichocephalic	78
English	"	78
Russians	Brachycephalic	82
French	"	82
Italians	Mixed	80

Stature	Colouring
High 170	Light hair, light eyes
" 170	Medium " " "
Medium 165	" " Medium "
" 165	" " " "
" 165	" " dark "

are consequently similarities and dissimilarities between these three types, and in these very points of similarity and dissimilarity are involved parallelisms which are taken to justify sociological conclusions.

Sociologic differences are indefinite and philosophical: anthropometric differences are exact and scientific. And yet in one sense inexactitude characterizes anthropometry, especially international anthropometry. There are many obstacles which stand in the way of obtaining reliable data;—there is no universal scheme of measurement, there are various methods, such as the German, French, English and Swiss, and there are various ways of interpretating data. In military nations emphasis is laid on conscript returns, in other countries pathological aims bias the gathering of material. On the whole, English investigators follow rules laid down by the

Anthropometric Committee[7], Scandinavians follow both French and German lines, and Russians adopt the French methods, Topinard's terminology, for example, and Broca's colour scales. For the purpose of reconciling points of unessential difference and seeking a common character for the investigations quoted, the author has employed the methods advocated by Martin.[8] Colouring of the hair has been identified with the colour of the hair exhibited in thirty samples contained in Fischer's *Haarfarbentafel*[9]: dark is taken to mean Nos. 4-9 and 27-30 (inclusive), medium 10, 17 and 22-26, and fair 18, 21 and 1-3. For the colour of the eyes see the *Augenfarbentafel* by Luschan[10]; dark is equivalent to Nos. 1-6 (inclusive), medium 7-12, and light 13-16.

COMPARISON OF TEUTONIC, ALPINE, AND MEDITERRANEAN TYPES

So taking our various national data for head index and roughly generalizing from average results obtained for various districts in the Teutonic, Alpine, and Mediterranean countries the following conclusion can be made upon the basis of the analysis presented by Chart 1. English heads are dolichocephalic, as is shown by the short narrow curve rising to its maximum at 77 degrees (Chart No. 1a); Scandinavians are next in order with a curve which rises to 79 degrees (Chart

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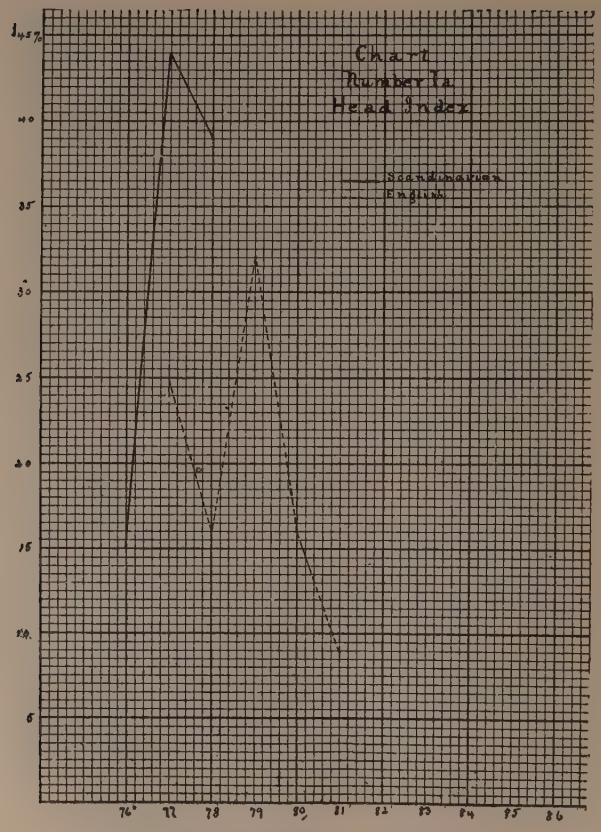
[7]British Association: Anthropometric Investigation in the British Isles. *Report of the British Ass'n.* Dublin, 1908, p. 351.

[8]Martin, Rudolph. *Lehrbuch der Anthropologie.* Jena, 1914, pp. 188-200.

[9]Ibid., p. 188, Fig. 51.

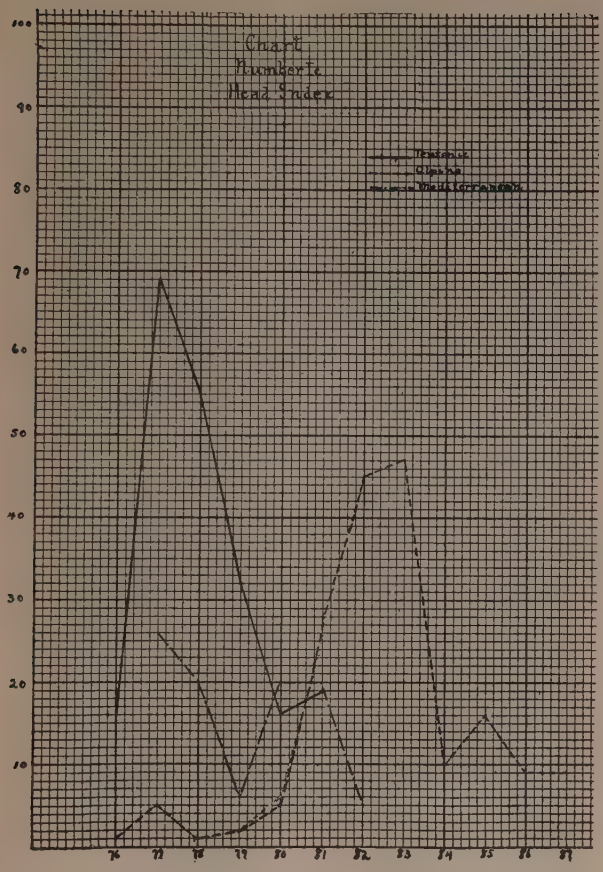
[10]Ibid., p. 193, Fig. 53.



—Scandinavian - - - English

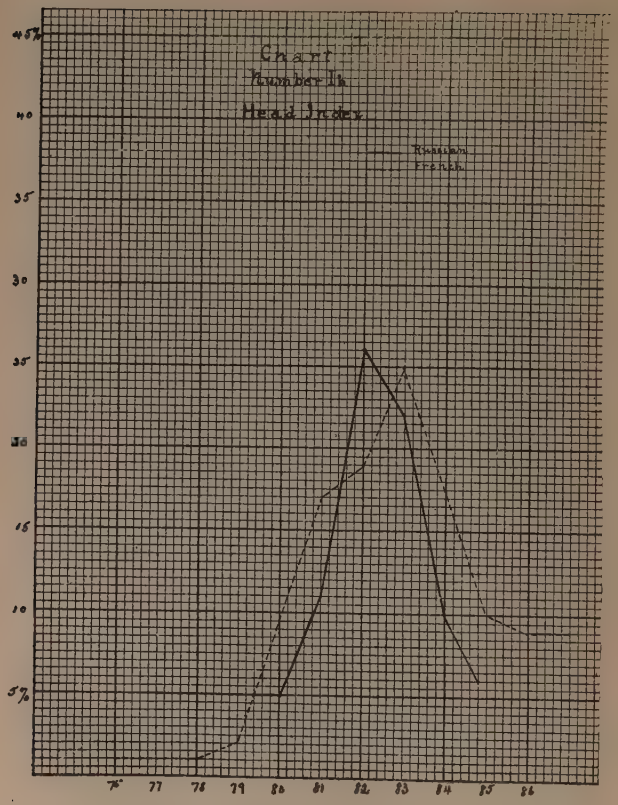
No. 1a); Italians have a longer curve with a maximum at 77 degrees (Chart No. 1c), and the French and Russians are quite brachycephalic with vertices at 82 and 83 degrees. (Chart No. 1b).

Stature in the north is almost invariably high, while



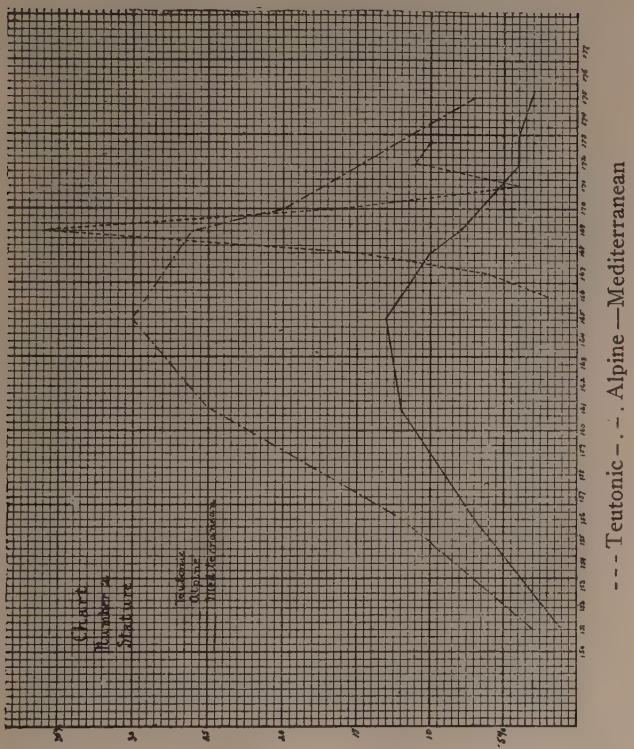
—Teutonic - - - Alpine – . – . Mediterranean

in the Alpine and Mediterranean belts it may be high or low. That it is, however, as a whole generally med-



—Russian - - - French

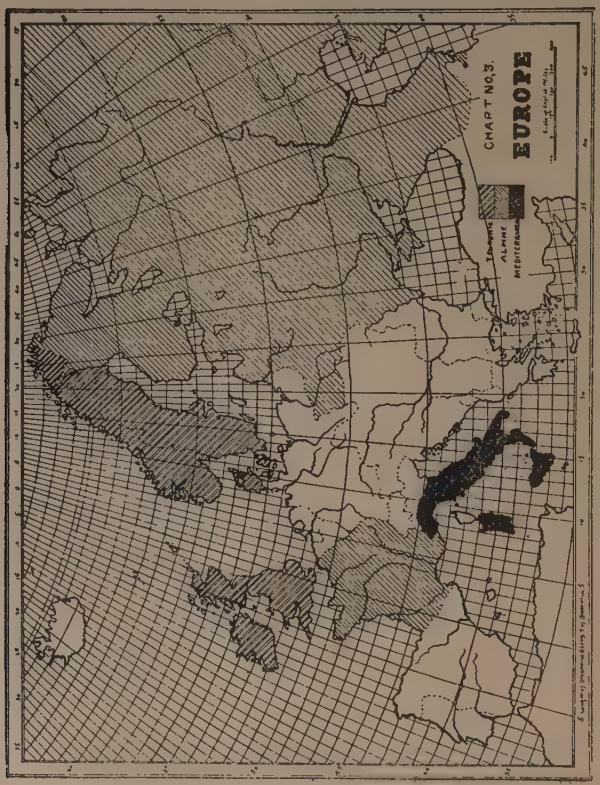
ium in the latter is shown by the maximal rise of the Alpine and Mediterranean curves in Chart No. 2 to 30 and 13 per cents. at 165 cm. These maxima as well as the massive character of the two curves serve to set them off in contradistinction to the Teutonic curve



which reaches its maximum at 169 cm with 36 per cent., and is sharp and angular in form.

Head index, then, differs in the northern, central and southern nations; the north and south are somewhat alike, the central unlike. Stature differs in being most pronounced in the north, while the south and central districts resemble one another. Finally, considering colouring, additional points of likeness and unlike-

ness are noticed. The Scandinavians are light haired and light eyed, the English are medium toned and light of eyes, the Russians are medium toned of hair and eyes, the French also, and the Italians medium of hair and dark of eyes. In other words, an increase of negrescence is observed in the nations according to the order mentioned:—Teutons are fairest, Alpines medium and



Mediterraneans darkest (Chart No. 3). Scandinavians differ from English, however, in having more complete absence of dark colour, while on the other hand, the Russians and the French make a harmonious racial group. (See Table 47).

Summarizing, there are racial differences in head, stature and colouring. Presenting these differences as points of similarity and dissimilarity it is easily granted that there exists little likeness between Teutons and Mediterraneans, or between Teutons and Alpines. In other words the dissimilarities between races outweigh the similarities, a conclusion which carries the implication that there must exist little or no sociological relation between Teutons and Alpine-Mediterraneans, while between Alpines and Mediterraneans some sort of sociological relation may exist.

Within the racial groups the points of similiarity outweigh those of dissimilarity. Within the Teutonic group there is likeness between the Scandinavians and English in head, stature and eye colouring. Within the Alpine group there is absolute harmony between Russians and French who agree as to heads, stature and colouring. Comparing inter-racial groups, the Scandinavians have no relation with the Franco-Russians: the English compared with the Russians exhibit a point of similarity in colouring, compared with the Italians there is common dolichocephaly. Between the Russians and Italians there is a slight similarity. Sociologically (a) Scandinavians ought to parallel the English, (b) the English should resemble the Alpines and the Mediterraneans slightly, (c) the Russians and French should parallel each other, and (d) Russians should resemble Italians in a slight degree.

The point of issue, however, is what significance do these anthropometric likenesses and unlikenesses bear to the matter of sociologic differences. We have seen

that the Scandinavian nations, Great Britain, Russia, France and Italy belong to varied sociologic types. The question logically rises, is there correspondence between likenesses and unlikenesses of sociologic and anthropometric types which can lead to the assumption that sociologic facts can be classified according to the postulates of physical anthropometry.

CHAPTER VIII

SOCIO-ANTHROPOMETRIC CRITIQUE

IN thus following the course of that moving reality of race called by Topinard "an abstract conception, a notion of continuity in discontinuity, of unity in diversity" from paleolithic times down through neolithic ages and over the period of prehistoric into the threshold of historic life and modernity, the ever evolving nature of human phenomena has revealed itself. Throughout the described span of development which included ages of bronze and iron, man's use of flint instruments and the domestication of animals, the origins of trade, wars, migrations, displacements of peoples and the births of church and statehood, there has been a constant tendency to group the phenomena as manifestations of an evolving reality. Disposition, character, type of mind have been treated with head, hair, and stature as derivatives of a common stock. The whole matter has been stated as if the laws of evolution which hold in the physical or biological sense held also in the domain of the psychophysical, but it is just this hypothesis which in laying bare such procedure exposes the whole fallacy of socio-anthropology. It is upon just this point that anthropologists and sociologists cannot unite, for there can be drawn from biologic anthropolgy no laws binding upon sociologic fact. Laws, customs, manner of living, in short, all that goes to make up culture is not determined by biologic laws. That anthropology in its broadest sense includes culture as datum for archeology and ethnology, does not imply that physical anthropology, or anthropometry, is anything more than ad-

vanced human anatomy or biology, a truth which makes impossible the plausibility of inserting biologic consideration into the purely psychologic domain of idea complexes, habits, emotions and beliefs.

The bases of one and the other of the two sciences are antagonistic. In one case the basis is physical, in the other, psycho-physical and spiritual; in one case the unit is man, in the other the socius or man related to man, consequently, given differing units and differing bases in how far is it legitimate to conclude that the facts of one department reenforce and supplement the facts of the other? Anthropology aims (a) to study man as a zoological specimen, (b) to study him in all time, and in all parts of the globe, (c) it seeks to break mankind up into component parts and to group these parts together again according to genetic or relational elements, and (d) it has to do with racial grouping only in so far as this grouping occurs within the limits set by similarity of original elements. Inclusive of ethnonolgy and archaelogy, anthropology has to consider culture only in so far as it assists in determining the essential grouping of mankind. It is thus brought into relationship with sociology through the province of culture, but sociology in its elemental definition is nothing more than the science of human association. It aims (a) to study man in all his relationships to other men and his manifestations in the material world, (b) to find regular laws of cause and effect, and (c) to determine how man will *act* under certain conditions according to scientific law,—aims which have in effect no coincidence with the aims of specialized anthropology. Anthopometry, which seeks to measure man, to standardize the measurements for the purpose of formulating controlling laws through the medium of comparison, has no direct correspondence with the postulates of sociology, that is, the study

of the socius in all its manifestations for the purpose of formulating laws directed towards benefiting society.

Such stipulations postulate the problems of the two sciences, if sciences they may both be called when it is "futile to talk about a science" for "when we come to organic life we have incalculable factors. These factors are more complex when we pass from animal to man and from the individual to society." Sociology's problem is summed up in its aim, the good of society; or stated fully,—man has various expressions of his nature, sociology studies him in all his manifestations, classifies his activities and seeks a reconciliation of these various activities to a common or telic law, which is the good of society. Anthropometry's problem is the study of man's differing bodily dimensions with a view to determining the causes of differences. The end of one science is moral, of the other, material. Sociology's task is presented in the question, do men, considered in all their varying manifestations, exert themselves for the good of society, in other words, is the telic law functioning? Anthropometry's task is the mere presentation of physical differences noted among individuals or groups of individuals. The unification of these two tasks would be the working hypothesis of socio-anthropometry. Stated, it infers that man embodying certain social manifestations and marked by certain physical characteristics is destined perhaps to work out the telic law.

At any rate the assumption is made that certain mental traits are always attached to the same physical ones. English, Russian or Italian physical traits, for instance, should go hand in hand with English, Russian or Italian mental traits. The investigation of Teutonic, Alpine and Mediterranean types brought out the fact that there exists no direct anthropologic rela-

tion between Teutons, and Alpine and Mediterraneans. Furthermore, there exists little sociological relation between the Teutons and the Alpine-Mediterraneans, for the Teutons are by disposition domineering and creative, the Alpine-Mediterraneans instigative; in character the Teutons are austere and rationally conscientious, the Alpine-Mediterraneans convivial; in type of mind the former are critically-intellectual and the latter dogmatic-emotional; finally, judged by the categories of sociality, the Teutons belong to the category sociality, while the Alpine-Mediterraneans belong to the categories of intellectuality and morality. The Teutons are characterized by a form of statehood that recognizes the rights of the people to a greater extent than popular rights are recognized in the Alpine-Mediterranean countries, although France and Italy are in this respect more like the Teutonic type than is Russia. In the matter of creed the Teutons are Protestant, and the Alpine-Mediterraneans are Catholic: in commerce and industry Teutonic England has achieved more than all the other Alpine-Mediterranean countries together, while in art the latter far outstrip the former. Judging as a whole it may be said that the inference that there exists no direct relationship between these types is amply substantiated by sociologic as well as anthropometric analysis. In other words a positive direction is given to the socio-anthropometric case of parallelism.

On the other hand, judging by inter-racial indication a negative answer is given to the query of parallelism, for although England and Scandinavia both belong to the Teutonic group they differ in being unlike dispositionally, in character, and in type of mind and sociality. Nevertheless, since state and church are consistently constitutional and Protestant in the two countries, the conclusion for sociological unlikeness be-

tween these two homogeneously Teutonic countries cannot be too sweepingly made.

Socio-anthropometrically, Scandinavia is diametrically opposed to France, Russia and Italy, for although the type of mind is dogmatic-emotional in the north as well as in central and southern Europe, the dispositional and character traits which make up these types of mind differ. Categorically Scandinavia belongs to the morality type, France and Russia to the type of intellectuality. The church in Scandinavia is Protestant, in France, Russia, and Italy Catholic, while art achievements in France and Italy are unparalleled in the north.

Anthropometrically England is like France and Russia in having types similar in colour of hair, and is also akin to Italy in possessing dolichocephaly, but sociologically England is opposed to France, Russia and Italy. The creative disposition of the English is offset by the instigative disposition of the French, Russian, and Italians, the rationally conscientious character of the former is offset by the convivial character of the latter, the critically-intellectual mind, by the dogmatic-emotional, and the category of sociality, by the joint category of intellectuality-morality. In the way of sociological achievements England's unique contribution has been the state, Italy and Russia, the church; the English exhibit marked commercial powers and the French and Italians marked artistic ability.

This case of sociological opposition is offset, however, by the agreement of anthropologic and sociologic facts between France and Russia and Italy. Alike as in possessing medium stature and medium coloured hair so in instigative disposition, convivial character, Catholic creed and artistic achievements, the Franco-Russians and Italians only differ pertinently in their form of governments.

Thus it would seem that there is to be found a certain amount of anthropometric and sociologic parallelism, which might support the claim that sociologic type in being coincident with anthropometric type, can be classified synonymously. On the other hand it is chiefly to be concluded from the following reasons that the case of parallelism is unquestionably assailed, firstly, because although there are three distinct anthropologic types, Teutonic, Alpine and Mediterraneans, there are but two distinct sociologic types since Alpine and Mediterranean types are not sharply differentiated from one another sociologically, secondly that although the English and the Scandinavians are one type they are nevertheless unlike, while the French and the Russians which are also one type are quite alike, or in other words Teutonic type is relatively anthropologically homogeneous, sociologically it is heterogeneous, while the Alpine type is both anthropologically and sociologically homogeneous,—conclusions which refute consistent parallelism. Since neither racial nor national sociologic type holds consistently to anthropometric classifications, the assumption is made that socio-anthropometry in postulating certain mental traits combined *sine qua non* with physical traits reduces to an absurdity.

As futile to argue, for instance, that because English hair is darker than Scandinavian, English commerce outruns Scandinavians, as to define Russian governmental methods in her Mongolic strains. Sociological considerations have no basis in anthropometric fact. Sociology is based as much upon history, economics and philosophy as upon biology, ethnology and archeology, and the very question of the distribution of peoples is for sociology more a matter of economic supply and demand than a scattering in obedience to racial commands. Archeology, anthropology, ethnol-

ogy, philology, history, psychology and geography are all indirectly related to sociology, but since it is the task of archeology merely to delineate prehistoric man, of ethnology to present the customs, laws and habits of racial individuals, of philology to investigate man's speech, of history to follow the course of man's actions in chronological sequence, of psychology to define the properties of man's mind, of geography his habitat, so is it the task of sociology to restrict itself to the delineation of man's social actions. That Neanderthal men were remote anthropologic men and not essentially residents of Gaul or Britain, that ploughmen were Aryans and not essentially founders of the house of William the Conqueror, that hordes were examples of early social formation and not conglomerates of long or broad headed individuals requires that facts shall be faced in view of the science involved; anthropologic facts shall be studied in anthropologic connection, ethnological facts in ethnological connection, and sociological facts in sociological connection. Because long burrows, dolichocephalic skulls and flint instruments are discovered in the same locality it does not unquestionably follow that ethnological laws are binding upon anthropologic fact. Considerations of wars and invasions, Huns and Gauls belong to the domain of history; the culture of ancient Rome to the history of civilization; early trade in Scandinavia and the origin of the state in Russia are economic and sociologic facts. The formation of nations such as England, France, Russia and Italy are phenomena of historic, economic and sociologic import, but although in defining national type, geography, politics, psychology, etc., enters in, no true sociologic definition of nations purely according to anthropometric data can logically obtain.

Sociologic type is subject to laws inoperative upon anthropology. The physical type, in fact, changes less

frequently and less suddenly than the psycho-physical; furthermore, the physical type may persist while the type of culture may take on a wholly different complexion, as for instance, the Mediterranean men were physically the same under Roman as under Italian civilization. Sociologic institutions may change regardless of physical type, for example, England before the Reformation was doubtless just as tall, dolichocephalic, and fair as at the present day. Viewed from the anthropologic point of view, a fair, brachycephalic and mediumly tall type does not necessarily imply a Finnish Russian culture, for it might just as easily fit an Italian Tuscan; as well say a social fabric supported by a short, dark, dolichocephalic type is Welsh as Italian. Sociology is the study of civilization and the criteria to be applied to civilization carry very little significance for physical traits. Taking the dominant sociological institution, the state, no set rule can in any manner govern both the brand of the state and its constituents. An absolute monarchy may apply to the Russians, to the pre-Revolution French and the early English; democracy characterizes old Rome and modern France. In those states which have had an experience of mixed government a mixed physical type is not *ipso facto* the rule. Although France with her history of various forms of statehood does have a population that is varied in type, Russia with her variegated types has long maintained an unchanging form of government.

The attempt to adapt the findings of anthropometry to the solution of sociologic problems is, finally, inexact and unscientific. Inexactness and unscientific candor are evident in the lack of a control. General physical measurements can never in any exact sense be correlated with general sociologic facts, much less so in the treatment of national units. Although a peo-

ple may be described as broad of head, short of stature, dark of colouring, and be called Icelandic, there is no possibility of ever scientifically recording the correlation between broad head, short stature, dark clouring and Icelandic. No separation of the two components of comparison, for instance, is ever possible, for the physical traits cannot be divorced from the national conception Icelandic. Therefore the futility of correlating the national physical and national psychophysical. Anthropologic type is independent of sociologic type.

CHAPTER IX

CRITICAL-HISTORICAL POINT OF VIEW

THE *Sociological Point of View.* The working hypotheis of anthropo-sociology in requiring a telic law which is to be executed by men marked in a characteristic physical manner implies one of three relational conceptions between mind and matter. One argument, that of parallelism for instance, is undoubtedly contained in the premise, and yet in spite of the contradiction which lies in the conscious unfolding of institutional life versus the unconscious development of biological life, the biologic law of evolution is unhesitatingly argued for by sociologists. Vacher de Lapogue, for instance, in committing himself to the view that sociologic type invariably accompanies physiological type apodeitically argues for the concomitance of social and physical law. In his *L'Aryen, son Role Social*[1] he elaborates a brilliant scheme of parallelism between dolichocephaly, blondness, and moral superiority. The blond dolichocephal is an exploiter, an adventurer, an inventer, and a wielder of ideas. "Il predomine dans les arts, l'industrie, le commerce, les sciences et les lettres."[2] Furthermore, the blond dolichocephal is member of a superior race. His race has subjugated the brachycephals. It has consigned the latter to the mountains and ill-favoured places, while it occupies the cities and centers of population. Vacher de Lapouge in thus presupposing a superior race gives place to the perfect working out

[1]Vacher de Lapouge, G. *L'Aryen, son Role Social.* Paris, 1899.
[2]Ibid., p. 399

of the law of evolution. This is Spencerian thinking which conceives of life as "a correspondence of internal to external changes; that mental evolution is the extension of adjustment in space and time; that social evolution is progress."[3] In other words, Spencer in insisting upon full scope for the evolutionary process reduces all type to the state of paying obedience to a uniform law. Physical and psycho-physical are but aspects of a whole which according to Spencer is an organism. But society as an organism expressed, for instance, in the writings of Schaeffle, Lilienfeld and Worms, has long ago received the full brunt of adverse criticism. Attacked on the score of defective analogy because of the lack of proximity of parts in society as in an organism, the absence of a central function, the possibility of separate social life apart from the whole, and finally, self-determinism contrasted with the lack of freedom of the one and the other, society comes to its own in defining itself as super-organism. That in so doing it thus avoids the casual connection between psycho-physical and physical events, is a fact which contributes somewhat of a defeat to psycho-physical correlation.

Now while Giddings does not acknowledge the organic view of society, he does admit a common law which governs all adaptation. Throughout the gradations physical and mental through which the race of man progresses there is "genetic order of evolutional change" and "the balanced order of correlation." "The presumption which biology establishes that the reign of natural law extends to every realm of the world of life is confirmed by the sciences of social phenomena."[4]

[3]Giddings, F. H. *Sociology*. Columbia University Press, New York, 1908, p. 28.

[4]Giddings, F. H. *Sociology*. Columbia University Press, New York, 1908, p. 11.

But although maintaining the existence of uniform general law, Giddings recognizes the cleavage existent between biologic and sociologic phenomena. Evolutionary demands may be satisfied by biologic examples of adaptation of organism to habitat, but there is a question whether this holds good of society's position. "Finally," says Giddings,[5] "There is a profound question of interpretation, the ultimate question of causation. From the political sciences we have derived conceptions of teleological causation. . . . From biology we have derived the conception of an ecological explanation. Life proceeds through an adaptation of organism to environment. . . . Is social evolution, in like manner, an ecological adaptation? Granting that it is, is it also an idealistic striving? How far, then may our interpretation of social relations legitimately be idealistic, how far must it be ecological?"

Ward makes direct application of biology to sociology. As the lower organism seeks pleasure, effort, satisfaction so man seeks these three expressions which in reality control all life. While in biology, heredity, variation and development effect the summary of biologic totality, in society conservatism, change and progress work out corresponding courses. "Progress in society," says Ward,[6] "like development in the organic world, is in the main an advance in the direction of perfecting the types of structure." But although Ward is a biologic sociologist, in some measure a physic-ethnologist, as for instance when he quotes Taylor[7] as substantiating ethnographic parallels by the occurrence of the same or similar customs and practices

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[5]Ibid., p. 13.

[6]Ward, L. F. Static and Dynamic Sociology. *Political Science Quarterly*, vol. X, No. 2, p. 213.

[7]Ward, L. F. and Dealey, J. Q. *A Text Book of Sociology*. New York, 1909, p. 27.

in peoples of nearly the same culture at widely separated regions of the globe, which shows that there is a uniform law in the psychic and social development of mankind, he does not carry psycho-physical parallelism to the extent that it is carried by Ammon and Closson.

To the sociologists of the methodic turn, Comte, Quetelet, etc., there is little significance attached to distinctions of anthropometric sociologic order: sociologists of political cast of mind, Gumplowicz and Channing, trouble themselves very little with such an issue: it remains with the biological school, Ross and Ratzenhofer, for example, to raise questions of superior races and racial distribution. Nowhere, however, is there so distinct a demarcation of physical anthropometric type along the lines of sociologic form as in Vacher de Lapouge's treatment of the hypothesis of anthropo-sociology.[8] Laws of head index in cities, laws of emigration types, of racial stratification and racial development are formulated, which record direct correspondence between anthropometric and sociologic phenomena. The tendency to classify sociological data according to the postulates of anthropologists is thus evident not only among sociologists but among anthropologists as well.

The Anthropological Point of View. Among the anthropologists the penchant to regard sociology as a mere appendage to anthropology is set forth in Topinard's definition of anthropology—in its broad sense it comprises everything that relates to man, and is divided into anthropology in its restricted sense, or anthropology proper, and into ethical anthropology.[9] The first studying man as an animal and the second as men associated together sociologically, represents the com-

[8]Vacher de Lapouge, G. *L'Aryen, son Role Social.* Paris, 1899.

[9]Topinard, P. *Anthropology.* London, 1878, pp. 1-25.

prehensive position of the older anthropologists, followers of Haeckel for the most part who identify with his material universe the wholesale study of man. Quatrefages and Topinard, the anthropologists, and Prichard, Tylor and Hovelacque, the ethnologists, take man's physical and spiritual life as the natural outcome of the undifferentiated law of evolution. The question whether in so doing they recognize one uniform controlling law rather than parallelism is brought out by a comparison to the thinking of Deniker, who makes a hard and fast distinction between biologic and social science. The difference is marked according to Deniker[10] by the fact that the trend of evolution has been specialized along different lines. One science presents man as an organism living under nature, the other man living in an artificially created environment, and possessing free will. This latter sociologic science (which, of course, in the view of the anthropologists is called ethnology or ethnography) "should concern itself with human societies under all their aspects; but as history, political economy, etc., have already taken possession of the study of civilized peoples, there only remains for it the peoples without a history or those who have not been adequately treated by historians."[10] The temptation is for anthropologists to regard sociology one-sidedly, merely as a study of the existence and development of communities, always restricting its scope by the very self limitations of the anthropologic point of view. The somatological postulate is allowed to dominate the sociological field.

Pursuing the claim that monism hardly answers the real query in the matter of socio-anthropology, for in postulating uniform law no substantiation of parallelism or causation between spiritual and physical fact is ac-

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[10]Deniker, J. *The Races of Man.* London, 1900, p. 9.

tually advanced, the question remains open for the out-and-out socio-anthropologists or anthropo-sociologists to answer. From Vacher de Lapouge to Ripley they go farther than agreeing upon parallelism, when they argue plausibilities for causal connection, if not in some instances direct causation. Lapouge in formulating definite laws of interaction between physical type and social manifestation, such as the concentration of dolichocephals as well as individuals of shortened stature in cities, the dolichocephaly of upper as opposed to lower classes, is quite thoroughly indorsed by Ripley who quotes anthropometric data gathered by Durand de Gros, Calori, Lombroso, Ricardi and Livi to prove that head index in cities is more dolichocephalic than in rural districts, who quotes Ammon's Law for lowered stature in metropolitan localities, and who states that the dolichocephals are mentally and socially superior to the brachycephals, a fact which is based upon the detailed statements of Von Hölder, Beddoe, Taylor, etc., to the effect that in France, Germany, Austria and the British Isles the upper classes are distinctly lighter in tone of hair and eyes than the peasantry.

Ammon in formulating the law quoted above by Ripley, places himself among the foremost of the followers of the anthropo-sociologist thinkers. Not only in stating that stature is lower in cities than in surrounding rural districts does Ammon take his stand with those, Closson, Hocepied, Boas, etc., who support the contentions of the socio-anthropologic school, but he also takes the position of believing the other tenets of that school, tenets which are summarized thus: that selection rules throughout the psycho-physical world, that heredity makes use of environment, that sexual selection works for the creation of psych-physiological type, that city dwellers are different from rural dwellers and that emigrating spirit corresponds

to an emigrating physical type. The climax of socio-anthropologic thinking that the blond dolichocephalic is and always has been the dominant race, incidentally an indirect argument against the evolutionist theory so tenaciously held by many socio-anthropologists, is not agreed to by all.

CHAPTER X

CONCLUSION

METHOD and Criteria. The matter finally resolves into two aspects. In brief, do sociologists recognize parallel laws governing physical and mental change, and do they substantiate the working out of these laws in sociologic fact? Do anthropologists recognize parallel laws and do they substantiate the working out of these laws in anthropologic fact?

Lapouge started with the hypothesis that the Aryan, or in more general terms, the blond dolichocephalic race is the superior race. This is the position of assuming that physical and mental facts are coordinate, and the burden of proof lies in adjusting sociologic conditions to meet the behavior of the blond dolichocephalic type. In doing this Lapouge uses anthropometric data collected by others than himself, and his procedure is to interpret *a priori* this material in the light of general sociologic fact. Comparison rather than scientific exposition of results gives conclusions which Lapouge shapes in the form of laws. These laws include in addition to the hypothetical subject matter (the blond dolichocephal's sociologic standing) other contributory and subordinate matters which in the course of the treatment of the blond dolichocephals have come up for discussion. The interpretation of all the results is invariably made on the assumption of an *a priori* theory which in its very essence is controvertible.

Ripley's hypothesis is that natural conditions make

sociologic men. He proceeds to analyse the anthropometric findings of other investigators on the supposition that physical topography, climate, etc., not only produce anthropologic but sociologic types. His conclusions are based on anthropometric, topographic and historic data, arrived at by *a priori* as well as *posteriori* reasoning. His point of departure is anthropometric, his deductions, on the other hand, sociologic.

Ammon and Boas in drawing up socio-anthropometric conclusions reason *a posteriori*. In each case the interpretation of anthropometric fact is framed in sociologic explanation arrived at by analogy, a picturesque but unscientific procedure. Science reasons from facts as causes to facts as effects, and logical causation is the only dependable scientific procedure. Likeness in cause and effect is essential: phenomena must be akin in matter or in form. Given related phenomena, upon likenesses or unlikenesses may rest the characterization of the components of comparison.

Not only does socio-anthropometry suffer from division of aim, not only are there grounds to doubt the very basis of socio-anthropometry as a science, but a *modus operandi* itself is lacking. No anthropo-sociologic method has so far been developed; anthropometric methods are inadequate, and sociologic methods are unequal for coping with anthropometric problems. Before such a science can be established anthropometric methods must be extended to admit of wider application, and sociologic methods must be narrowed to more definitely scientific ends.

Of primary necessity to the working out of socio-anthropometric problems would be the requirement of international agreement upon matters of formulae, instrumentarium, modes of procedure, methods for detecting error and checking and verifying results.

Also of prime importance to an establishment of the

subject of socio-anthropology is the need for extended original research. Conclusions based upon data gathered, for instance, by Collignon for France and Livi for Italy are all very well for French and Italian conditions but in order to make valid universal (sociologic or anthropometric) laws investigations of international scope should be entered upon. Uniformity of units in regard to age, sex, social conditions, etc., etc., are requisite *sine qua non* in such study, for far reaching questions of the influence of various factors upon skulls, their variability according to age, sex, artificial manipulation, as well as the sexual ratio in stature, colouring, etc., are far from being settled. It is necessary to find out more clearly what causes the formation of the head and to control external factors. "Encore serait-il necessaire si l'on voulait mettre en cause la forme du crâne ou la race indiqué par l 'indice cephalique, de voir si les conditions exterieures independantes de la race et du crâne ne sont pas venues compliquer la question."[1] Stature in itself presents more than ordinary difficulties. Taking a small group, for instance, 200 Italian peasants in Lombardy, among the two hundred, 50 may because of illness have been slightly retarded in growth, 25 may be feminine, 25 dwellers in the valleys, 50 may because of lacking a few years of mature growth be under par, and furthermore 50 may be but recent additions to the population of the place in question. Comparing them to a place in Cornwall, for instance, is it possible to get just such a combination of varying units, 50 sickly, 25 feminine, 25 valley dwellers, 50 under age limit, and 50 new-comers?

Furthermore, sociologic concepts being general and speculative in nature are difficult of analysis as objec-

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[1]Manouvrier, L. L'Indice cephalique et la Pseudo-Sociologie. *Revue l 'Ecole d'Anthrop*, IX, p. 259.

tive fact. Matters which concern the "soul of a people," or the sociologic significance of Protestantism and Catholicism are too comprehensive and too complex in nature to qualify for exact objective analysis. Socio-anthropometric studies are forced to depend, at the best, upon generalization not only in sociology but in anthropometry as well. The analysis of the population of a nation is when considered as a whole glaringly generalized. Russia, for instance, has very dark haired and very light haired districts, but taken as a whole the designation medium coloured of necessity has to cover the whole range of national variation. The sociological analysis of a people is, furthermore, exceedingly general, and what is of greater significance, there has been no sociological *modus operandi* developed for determining just what is the sociological nature of a people. Its psychological character has indeed been standardized by Giddings into categories of kind, but aggressive, instigative, domineering and creative disposition, and forceful, convivial, austere and rationally conscientious character are inadequate as criteria for the "soul of a people." Aggressive and domineering are to an extent mutually inclusive, and the contemplative attitude is neglected in this classification of types of disposition. The older version of antiquity, that is, bilious, sanguine and lymphatic temperaments is still more inadequate. Racial psychology is in arrears in the matter of exact classification, and yet even supposing the contrary, Manouvrier in placing himself open to conviction, says that after all the matter of identifying certain psychologic traits in a group of people is distinctly hazardous. Speaking of dolichocephaly and brachycephaly he adds, "Il faudrait des statistiques trës etendues pour savoir si chacun de des deux types fournit un nombre relativement superior d'individus possedant

telle ou telle qualité."[2]

Problems. But regardless of defects in investigations already at hand, regardless then of the lack of a truly scientific *modus operandi* for handling anthropometric sociologic investigations, problems nevertheless present themselves for treatment in spite of the fact that the whole field of socio-anthropometry can unquestionably be assailed. Furthermore, that these problems originate in the doubtful ground of socio-anthropology does not for a moment preclude the possibility of attempted solution. Prerequisite to the treatment of sociology in reference to physical type is a determination of the part to be played by national units. Do nationalities in themselves affect socio-anthropologic considerations? The problem as such has not come up for direct treatment by anthro-sociologists. Boas in laying stress upon the locality theory, that is, all Europe divided by type instead of country[3] means to discountenace the value of national units, but if any sort of absolute standard or test mark of sociologic phenomena is to be required it seems impossible to do without national units as expressive of the working out of sociologic laws. For instance, the problem of physical and social heredity demands such a background. On the other hand, nationalities present obstacles in the unlike physical units which are often to be found in a national population, as for instance in Russia. Consideration of national type is, finally, essential to the treatment of such socio-anthropologic problems as city life, emigrating type, etc.

However, the question of primary or furthermore of superior races does not necessarily demand solution from socio-anthropometry. There is too much doubt

[2]Manouvrier, L. L'Indice cephalique et la Pseudo-Sociologie. *Revue l'Ecole d'Anthrop.*, IX, p. 258.

[3]Boas, F. The Race-War Myth. *Everybody's Magazine*, vol. XXXI, No. 5, p. 672.

about the original race to make hard and fast statements possible. The socio-anthropologic question gains nothing thereby. Not only has it been maintained and successfully disputed that the big, blond Aryans have been the original stock, but it has also been maintained that short, dark dolichocephals[4] have held the honour of being mankind's progenitor. But says Boas[5] in regard to the blond Aryan myth, "No one has ever proved either that all the Aryans of the earliest times were blonds, or that people speaking other languages may not have been blond, too; and nobody would be able to show that the great achievements of mankind were due to the blond thinkers." Gumplowicz[6] says national chauvinism might be read into the claim for racial superiority. Although there are those who maintain that stocks are unchanging, that for instance the population in Denmark is the same to-day as it was in the neolithic age[7] nevertheless for the consideration of practical socio-anthropometric problems no final statement about primary races is required. The *a posteriori* order is more practical than the *a priori* in this case.

Of primary importance to socio-anthropologists is the consideration of city versus rural type, a problem which although carefully studied by Ammon, Collignon, and Livi deserves more than usual scientific caution and acumen. To substantiate the law of urban dolichocephaly not only must nationalism be reckoned with but there must be also careful unification of material, uniformity of method and procedure. In se-

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[4]Sergi, G. *The Mediterranean Race.* New York, 1909.
[5]Boas, F. The Race-War Myth. *Everybody's Magazine,* vol. XXXI, No. 5, p. 671.
[6]Gumplowicz, L. Politische Anthropologie. *Die Zukunft,* vol. 45, pp. 174-183.
[7]*Meddelelser om Danmark's Antropologi,* Bind I, p. 163.

lecting material the factor of heredity should be taken into account, and rural inhabitants of three or more generations should be compared to urban inhabitants native for the same length of time. When number, sex, and age are carefully controlled, interpretation of final results must be guarded in respect to determining active rather than potential causes of stature deviation. This is where a great stumbling block to socio-anthropology is met. The decision as to what is the sociologic cause for differences—if difference is found to exist—is wrapped in the obscurity of multiform sociological matters. Furthermore, aside from sociological ambiguity there may be explanation on socio-anthropometric grounds in reference to city head-type, that is, dolichocephalic emigrating type may be finally the explanation of dolichocephalic urban type. Urban stature offers a variety of problematic points. In taking stature in cities, factors of race, age, sex, wellbeing, training, etc., must be controlled. Furthermore, distribution must be widely extended in order to avoid error from averaging; likeness of units that is, class and social conditions, must be regulated before conclusions can be sought. The fact that a variety of artificial factors as occupation and habits affect stature requires a careful elimination of arbitrary factors.

When the problem of upper class dolichocephaly versus lower class brachycephaly presents itself, stricter care than ever must be given to probable error because of the artificiality of factors. Not only is it difficult to substantiate the claim that dolichocephaly and blondness characterize upper classes, it is even difficult to localize upper classes exclusively; war and democracy, restlessness and ambition constantly change the boundaries of class. Never can it be asserted that brachycephaly changes directly into dolichocephaly with the social change. Furthermore, brachycephalic nations have

their upper classes, and that these should be other than brachycephalic is utterly unsuppositional. Although with Beddoe one can say that a study of navy men leads to the conclusion that class affects head index, with Livi it can be shown that in southern Italy the professional classes are brachycephalic while in northern Italy they are dolichocephalic. As evidence *ne plus ultra,* who would expect the dolichocephalic negro to mark the apex of civilization?

The problem of emigrating peoples offers the most speculation of all anthropo-sociologic matters. It has been asserted that dolichocephaly characterizes emigrating peoples,[8] and it is asserted that not only do the more mutable characteristics of stature and colouring but head index changes under the influence of altered environment.[9] In stating that head index changes, the socio-anthropologists go too far is challenged by Sergi[10] and Radosavljevich.[11] They denounce the claim that environment may produce a totally altered type. The claim is virtually an attack on the physical-social theory of heredity. Mendelism, hybridization, and similar biologic considerations affect physical type, and it is not plain or mountain, severe or moist climate which affect dolichocephaly or brachycephaly. Is it the habits and the customs of peoples which act upon the muscles of the head and so transform the cranial structure,

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[8]Vacher de Lapouge, G. *L'Aryen, son Role Social.* Paris, 1899.

[9]Boas, F. *Changes in Bodily Form of Descendants of Immigrants. The Immigration Commission.* Washington, 1910.

[10]Sergi, G. Variozone e Eredita Nell 'Uomo. *Problems in Eugenics,* vol. I., 1912.

[11]Radosavl jevich, P. R. Professor Boas' New Theory of the Form of the Head. *American Anthropologist,* (N. S.) Vol. XIII, No. 3.

asks Sergi. Nothing of that sort happens in fact. Social heredity implies transmitted historical and cultural environment.

Even in America, an example of immigrating peoples which shows phenomena of transplanted stocks, neither the first nor the second position of the socio-anthropologists is substantiated. Brachycephals as well as dolichocephals are emigrating peoples: emigrating physical stock has created biologic phenomena, but no parallelism with sociologic phenomena has so far been substantiated. That there may be a connection, but that that connection is not yet proven is suggested by Manouvrier,[12] the arch critic of pseudo-sociology, when in discussing the plausibilities for biologic interpretation of sociology he says, "Il faut cependant se garder de croire que de biologie soit capable de fournir immediament l 'explication des phenomenes sociaux." That social and physical heredity are virtually distinct entities is the conservative belief.

Conclusively it may be stated that there is not enough evidence to be marshalled into dogmatic socio-anthropometric laws. The tendency is to make brief and sweeping conclusions on insufficient evidence. Anthropology has to do with longer epochs than sociology. The demand for society's consideration is the present and the near future; society is pragmatic and is concerned with action under certain specific conditions. The demand made upon anthropology is never pressingly immediate. Pure anthropology has to do with centuries where sociology has decades to handle. Changes in anthropologic type are so long delayed and so extended in space that under no consideration can they be made use of to support explanations for the occur-

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[12]Manouvrier, L. L'Indice cephalique et la Pseudo-Sociologie. *Revue l'Ecole d'Anthrop.* IX., p. 235.

rence of political or economic events. Hansen[13] in speaking of politics and racial types says, "One must be careful . . . not to combine directly or indirectly the physical idea of race with the historic-political aspects." Very little is gained, for but a small part of the domain of sociology is touched by anthropology. Where sociology is philosophical, anthropology or anthropometry is mathematical, where sociology is synthetical, anthropometry is analytical.

Summary. That future anthropometry, in the words of Hrdlicka,[14] should be concerned with firstly, studies of the complex range of the variations of normal white man living under average conditions, secondly, studies of the structure and organic qualities of man regarded in relation to time, thirdly, studies of the human races and their mixing and subdivisions, fourthly, of environmental groups of humanity subject to extremes of temperature, etc., and lastly studies in combination with other branches of accumulated knowledge to show the future evolution of man and to lay down indications for humanity's possible regulation and improvement, indicates that upon the points of racial mixing and environmental grouping, sociologic studies may possibly cooperate with anthropometric. But that the most directly implied connection is detected in the final stage of progress means that socio-anthropometric transition is virtually placed in the utopian sphere of human improvement, in other words, taking the entire sweep of anthropologic development and the entire sweep of sociologic progress, and rasing the question as to whether there is a logical validity in using the postulates of

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[13]Hansen, S. Om Hovedets Breddeindeks hos Danske. (The Breadth-Index of the Head in Danes). *Meddelelser om Danmarks Antropologi*, Bind I., p. 240.

[14]Hrdlicka, A. Physical Anthropology and its Aims. *The Anatomical Record*, vol. 2, No. 5, pp. 193-195.

one science for postulates of the other, it can be stated that judged by racial (national) differences, the claim of sociology to classify its data according to the postulates of physical anthropometry has been seen to be doubtful. Classified sociologically and anthropometrically the findings from racial investigations do not justify the claim that physical and psycho-physical facts are controlled by one and the same law, nor that there is consistent parallelism, nor that there is a causal relation between the two. Finally, judged on the basis of aim and content, there is absolute separateness and antithesis between the two branches of knowledge; and judged as a practical science, socio-anthropometry reveals a lack of a *modus operandi,* and analysed as far as previous investigations permit, it betrays an absence of proof of the fact that sociological phenomena are ever directly attributable to anthropometric phenomena.

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